NetVision *XC/XS* V2.2

User's Guide

Contents

Copyrights and Trademarks

™ NetVision is a trademark of
 CSG Security Inc./Sécurité CSG Inc.
™ Pentium is a trademark of Intel Corporation
™ ® Microsoft, Windows, Windows 2000, and
 Windows XP are trademarks or registered
 trademarks of the Microsoft Corporation.

Disclaimer

All software, firmware, drawings, diagrams,
specifications, catalogues, literature, manuals
and other supplied materials shall constitute the
proprietary information of the manufacturer. In
the interests of ongoing improvement in quality
and design, we reserve the right to change
product specifications without prior notification.

Attention: Physical alteration of hardware
components or removal of electrical devices may
void warranties, and/or affect radio-frequency
and electromagnetic emissions.

Welcome to NetVision

1   System Overview

1.1   System Overview:

NetVision™ is a remote digital video surveillance capture and reporting system accessible by LAN/WAN, the Internet, or through a dial-up networking connection. The two main components of the system are the Capture Station (with cameras) and remote stations.

The Capture Station is a video server, which collects and digitally records video input from video cameras and allows viewing it at remote surveillance stations using an IP link (LAN/WAN, internet, or dial-up networking).

Note: Due to speed and reliability considerations, dial-up connections are not recommended.   Use a faster connection if you have a choice.

Capture Station Models: Different NetVision capture stations are available, supporting 4, 8, or 16 cameras.

Remote surveillance Stations are video receivers that function as monitoring consoles and enable a variety of administrative, alarm and monitoring functions. Remote monitoring tasks can be carried out from anywhere you have access to your network, the internet, or a telephone.

The capture station includes a computer, video capture board(s), cameras, and software. Remote surveillance stations include software typically running on an existing/locally sourced Windows PC.
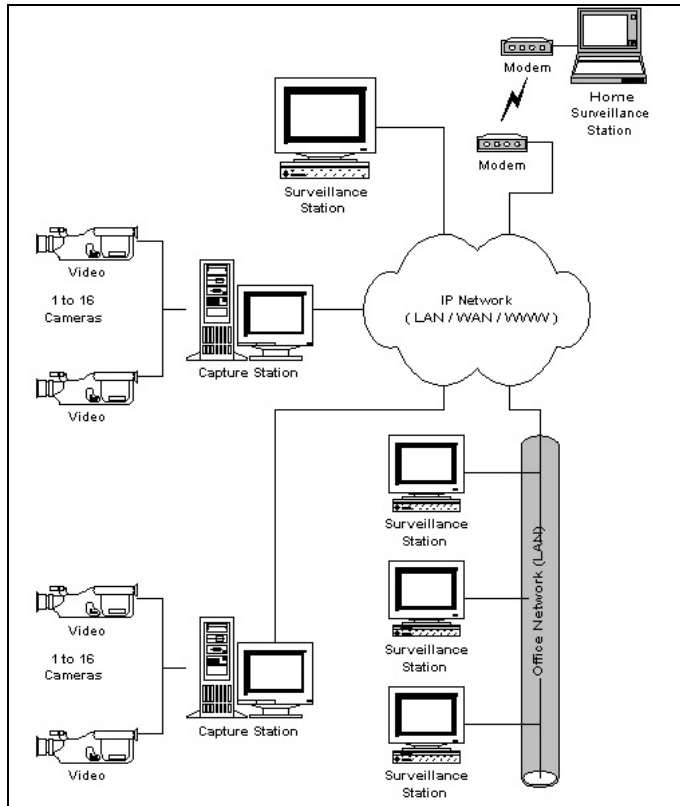
1.2   Additional components include:

- Video cameras (up to 16--using four capture boards). Any of them can include PTZ support.

  Eight ports/PTZ protocols are supported, plus PTZ-cascading (e.g., Canon VC-C4).

- Input / Output wiring harness;

- A microphone (for audio support at one camera--can be monitored at remote stations as well).

Tip: A sound card or equivalent is built-into the capture station.

1.3 **NetVision Software**:

- Netvision (Capture Station): View and record up to 16 cameras at a time, plus access/support for all other features, and system configuration;

- Remote Station: Integrated remote viewer and playback software. View and record up to 16 cameras at a time from various capture stations. Play up to 4 video recordings at a time. Chat with a capture station. Respond to alarm alerts. Control PTZ cameras. Perform file maintenance (housekeeping) tasks.

- Remote Module: View and record 1 camera at a time, with access to playback utility and other features.
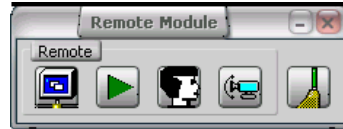
- Video Playback (local and remote): Select a capture station and camera. Then, select file(s) from a list, and play up to 4 at a time. (manually, or sequential / continuous).
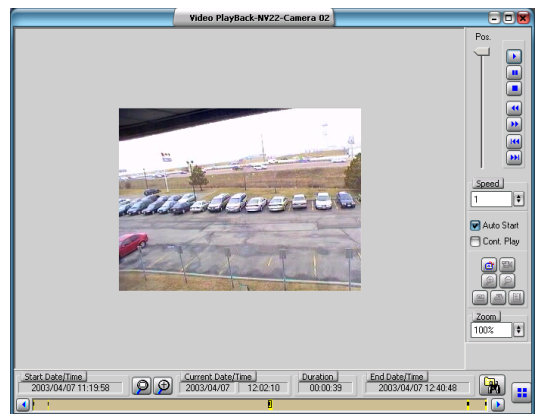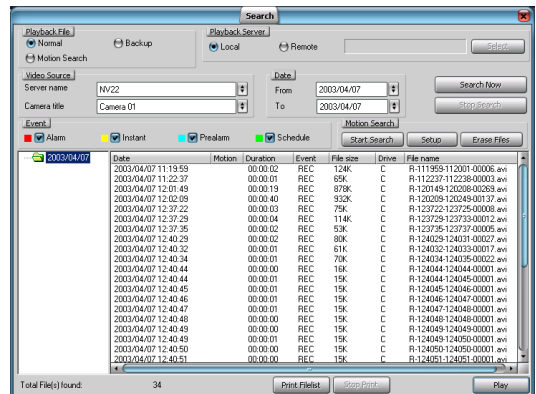
2   Intended Audience and Required Knowledge

Sections pertaining to common tasks require only a basic knowledge of using MS Windows. For example, you should be familiar with how to:

- Double-click, right-click, and drag-and-drop items in MS Windows.

- Select or enter values in an on-screen form, and select **[OK]** when finished.

- Respond to general/confirmation prompts.

Although the technical sections have also been written with usability and simplicity in mind, the procedures discussed there require a better familiarity with both MS Windows, and networking environments. For example:

- Being comfortable configuring more technical features, and using the Windows "Control Panel";

- How to get to a DOS/Command prompt (e.g., to 'ping' an IP address).

Network Reliability: Since this system works through your network, any problems with the network and/or permission issues may block communications and/or cause features to be unavailable.

The reliable operation of your network is the responsibility of your network administrator.

3   Feature Overview

Briefly, the NetVision system supports:

- Local and remote security via local and remote user passwords and permissions;

- Extensive camera viewing and recording features including: Local and remote viewing and recording of up to 16 cameras; Sequential camera viewing; Local and remote control of PTZ cameras;

- Camera images can include a date/time stamp, and up to three custom titles;

- One camera can have a microphone associated with it (audio monitoring/recording);

- Audio can be monitored at remote stations. This allows sounds associated with a camera to be heard (and included in recordings). This also allows an operator to 'broadcast' verbal instructions to remote stations that are 'on-line' (via PC or camera microphone; controlled through remote user permissions).

- Smart motion-search within video files, plus separate search and playback of: • Regular video recordings; • Backed up files (CD, etc.); • 'Motion-found' segment files.

- 'Snapshot' images can be taken from recorded videos for printing or archiving. (Printouts can include header, disclaimer, and comment text.);

- Each camera can be triggered to auto-record by an external sensor, or motion being detected in the camera's view (configurable including detection zones).

- Motion sensing and/or recording can be scheduled to occur at specific times. (Recording can also be done manually, at capture stations and remote stations.)

- Alarms (external sensors, video motion detect, or video/signal lost) can automatically trigger an alert being sent to:

    + Signal a remote surveillance station (with or without: A custom sound being played; 5-10 frames being displayed; The live camera being auto-displayed, and/or; The camera being auto-recorded.)

    + Signal an e-mail recipient (with or without a 'snapshot' image).

- Alarms can trigger external device(s) through one of three built-in outputs (one for external sensors triggered, one for video motion-sense, and one for either/both).

- Netvision users can 'chat' on-line with capture station operators.

- The following items can be logged at a capture station:

    + Motion-detection and video lost alarms that occur;

    + Changes being made by operators using the [Utility] menu;

    + Remote video playback sessions.

- The watchdog feature causes the capture station to restart automatically if the Netvision software stops responding for a pre-set duration (60-250 sec.). With the **hardware** watchdog option, the capture station will be restarted in the event of MS Windows 'hanging' or 'crashing' as well.

- Built-in HTTP server;

- Remote (browser-based) configuration of many items including motion detection set up;

- Selectable recording CODEC (compression and file-type) at capture stations and remote stations;

- Video files are encoded to help allow the detection of image tampering.

4 Your NetVision Desktop

4.1 Remote Surveillance Station Desktop

The Main Window: Displays selected camera views (one or four);

Right-Hand Side of the Display: This includes these items:

• Video format selector (NTSC or PAL);

• Screen mode selector (1, 4, 9, or 16 camera/views);

• Capture station list and connection controls;

• Status / event list.

The Toolbar (bottom of the screen): This includes:

• **Play Back:** Allows playing previously captured videos, and capturing / printing individual frames.

• **HouseKeeping:** Allows performing file management and hard-drive maintenance tasks;

• **Alarm Alert:** Allows viewing alarm alerts sent from a capture station (triggered by an external sensor, video motion sense, or video/signal-lost detection);

• **Chat:** Allows sending and receiving text to alert or collaborate on-line with other NetVision users;

• **Audio Monitor:** Allows remote stations to monitor audio from capture stations equipped with a microphone (associated with a camera);

• **Utility** (tools symbol)**:** Allows configuring some auto-reconnect parameters, plus the recording CODEC (compression and file-type);

If you Wish to Minimize the Remote Station Desktop

Click the minimize button in the top right corner of the screen.

Alternative: Right-click the blue title-bar at the top of the screen (try it!).

4.2 Capture Station Desktop

The Main Window: Displays selected camera-views (from 1 to all 16 at-a-time);

> **Tip:** A hard-disk usage indicator appears at the bottom of the screen.

"Display" Selections: The upper-right portion of the screen allows you to:

- Select the number of camera/views (or 'groups' of cameras) to be visible at one time. (Try it!);
- Set the screen to sequentially step through the cameras / views;
- Select individual cameras to view on-screen (1 - 16).

"Recorder" Selections: The middle right-hand portion of the screen allows you to:

- Manually start / stop recording desired camera view(s). (individual camera(s), or all at once with **[Record All]**). With instant-recording, double-clicking a camera-view starts the recording.

Related Topics: 6.4 Alarm / Recording Status Indications (Camera Number Colours); 17.2.5 Misc. 🗀 (see "Instant Recording")

Large Buttons, Bottom-Right Corner:

- **[Logon] / [Logoff]:** Allows an operator to log in (to gain access to the system), or log off when they are finished;
- **[Utility]:** Provides access to a number of system settings, and maintenance/file-management tasks;
- **[Playback]:** Allows playing previously captured videos, and capturing / printing individual frames.
- **[Full Scr]:** Expands the active camera/view(s) to fill the entire screen.

> **Tip:** Right-click the screen once to return to normal viewing.

- **[Exit]:** Allows shutting down the system.

> **Note:** as this will stop all camera monitoring and recording for this capture station, you will be prompted to confirm your intentions. You must be logged in to use this (may require a "Supervisor" login).

If you Need to Minimize the Capture Station Desktop

While logged in, you can minimize the capture station software by right-clicking any fixed portion of the desktop (i.e., outside of any buttons or display areas), and selecting "**Minimize**".

> If this feature is not available: This can be turned on and off.
> **See:** 14.1 Enable/Disable the Minimize Feature

4.3 Communications / Server Modules (Capture Station)

You'll notice some items on the task bar at a capture station when the NetVision software is running.

- **Alarm Alert Caller:** Manages the sending of alarms to a remote surveillance workstation;

  Related Topics:
  15.2 Set Up the Alarm Alert Caller;
  6.2 Responding to Alarm Alerts (Remote Station)

- **Alarm Alert Email Sender:** Manages the sending of alarm notifications to e-mail recipients;

  Related Topics:
  6.3 Responding to Alarm-Alert Email
  15.1 Enable/Disable Alarm Alerts or E-Mail

- **Playback Server:** Allows remote surveillance stations to playback previously recorded video sequences;

  Related Topics:
  7 Playing or Downloading Video Recordings

- **PTZ Server:** Allows remote surveillance stations to remotely control camera-views (Pan/Tilt/Zoom);

  Related Topics:
  8.3 Changing a Camera's View (Pan/Tilt/Zoom);
  16.3 Pan/Tilt/Zoom Activation and Set Up

- **Chat Server:** Allows remote NetVision users to chat with capture station operators;

  Related Topic:
  6.5 Chatting On-line with a Capture Station

- **Video Server:** Allows remote surveillance stations to view cameras connected to a capture station;

  Related Topics: 8 Viewing Live Cameras

- **Search Engine Server:** Allows efficient local and remote searching of video files;

  Related Topic:
  7 Playing or Downloading Video Recordings

- **Watchdog:** This causes the capture station to restart automatically if the NetVision software stops responding for a pre-set duration (60-250 sec.);

  > Tip: A hardware watchdog option is available as well (for protection against MS Windows crashing or 'hanging').

  Related Topics: 24 The Watchdog Feature

- **Audio Server:** Allows remote stations to monitor audio from capture stations equipped with a microphone (associated with a camera);

  Related Topics: 16.9 Remote Audio Monitoring

- **DSR_Relay Server:** Allows remote users with access to the Internet to perform many configuration tasks using their Web browser;

  Related Topics: 23 Remote Configuration

- **Webcam Server:** Future use;

- **USB Alarm IO Server:** Future use;

Remote_Users: The remote users who will be able to access specific features can be set up as desired.

Related Topics: 11.2 Remote Users and Permissions (+ HTTP server port)

Common / Daily Tasks

5 Starting your Software and Logging In

5.1 Remote Station: Start-up and Logging In

5.1.1 Power Up and Windows Log In

Ensure your PC is powered up, and log into your MS Windows as usual.

5.1.2 Starting the Remote Station Software

Tip: Check the Windows task-bar to see if the remote station software is already running.

> From the Windows **Start** menu, select **Programs, NetVision**, and **Remote Station**.

Starting the Remote **Module** Software: For details on starting and using the remote **module** software, refer to:

Related Topics: 22 Using the Small Remote Module

5.1.3 Logging in At a Remote Station

When you start the remote station software, you will be prompted for a username and password. These are passed to the specific capture station during the connection process.

Tip: Press **Tab** in between, and **Enter** (or **OK**) when finished.

Notes: User names, passwords, and allowed permissions are set up at each capture station.

Capture stations can also provide free access to remote users (although you must enter a sample username **and** password after starting the remote station software).

Usernames are also referenced when managing remote user connections from a capture station.

With the small **remote module** software, you enter your name and/or password only when connecting (where applicable).

5.2 Capture Station: Start-up and Logging In

5.2.1 Power Up and Windows Log In

Capture stations typically come pre-set to start up automatically after a power failure and restoral (including automatic Windows log in).

To start a capture station the first time, or after a manual shut-down, look for a power switch on the back (turn this on), and another one on the front (push on, and release).

Network Access: For a new capture station, contact your network administrator to have the capture station PC given login privileges on your network.

5.2.2 Re-Starting the Capture Station Software (only)

If the NetVision software is shut down at a capture station, you can restart it as follows:

> From the Windows **Start** menu, select **Programs, NetVision**, and **NetVision**.

Auto-Startup: Capture stations typically come pre-set to have the NetVision software start automatically whenever the PC is re-started (and after a power failure).

Quick-Access: Similarly, you can provide easier access to any program or Control Panel item by dragging its shortcut to the Windows desktop (anywhere) or to the taskbar (near the left side).

Security Key Not Found / Restricted Mode error: This means only that your capture station supports more capture boards than are presently installed (and/or you are trying to use an unsupported type of capture board).

5.2.3 Logging in At a Capture Station

Capture stations support two types of local users: **Supervisors**, and **Operators**.

At a capture station, click **[Logon]** on the main screen. Then, enter a username and password that has been registered.

Tip: Press **Tab** in between, and **Enter** (or **OK**) when finished. <u>Note</u>: After restarting the software, **[Logon]** may not be available for a minute or so.

Default Capture Station User Names and Passwords

User name	Password	Permissions
Super	--	Access to everything.
Operator	--	Everything except configuration tasks.

Note: These passwords do NOT pertain to remote stations.

Related Topics: 11.1 Capture Station Users and Passwords

5.2.4 If you Need to Minimize the Capture Station Desktop

While logged in, you can minimize the capture station software by <u>right</u>-clicking any fixed portion of the desktop (i.e., outside of any buttons or display areas), and selecting "**Minimize**".

If this feature is not available: This can be turned on and off.
Related Topics:
14.1 Enable/Disable the Minimize Feature

5.2.5 PTZ Control after Start-Up

The PTZ server has a delayed start-up to allow Windows services to stabilize. (The PTZ feature will not be available until 1 minute (approx.) after the capture station is re-started.)

Related Topics:
8.3 Changing a Camera's View (Pan/Tilt/Zoom)
16.3 Pan/Tilt/Zoom Activation and Set Up

5.3 Remote Station: Logging Out, Changing Operators, or Shutting Down

At a surveillance station, there is no need to leave the software running with no one logged in, so you'll be logged out automatically when you shut down the software.

To shut down the software, click, the **[X]** in the upper right corner of the screen.

If a new operator wishes to log in, they can start the software and login as usual.

5.4 Capture Station: Logging Out, Changing Operators, or Shutting Down

To logout at a capture station, click **[Logoff]**. If a new operator wishes to log in, they can click **[Logon]** and enter their username and password as usual.

To exit (shut down) a capture station, click **[Exit]**. **Note:** as this will stop all camera monitoring and recording for this capture station, you will be prompted to confirm your intentions.
Note: The **[Exit]** button is available only when you are logged in, and depending on the start-up options, may be available only for "Supervisors".

6   Alarm / Reporting Features and 'Chatting'

6.1   System I/O Primer

Capture stations support video motion sensing (configurable including detection zones), plus one physical sensor associated with each camera. Both features can trigger automatic recording, and the system can be set to maintain short recordings so the view of just before motion was detected is available (pre-alarm recording).

Motion detection and/or video/signal-lost detection can also:

- Trigger an email recipient, or;
- Cause a surveillance station to be alerted to check a specific camera.

Three outputs are supported at each capture station for additional signalling. These can be used to alert an alarm system, or to trigger a self-powered device. One output activates when motion is sensed in any camera view, another when any external input is triggered, and the third one activates on either (both) of these conditions.

Tip: Inputs and outputs are supported through a special wiring harness.
Related Topics: 25.3 Input / Output Wiring

6.2   Responding to Alarm Alerts

A capture station can let one remote station (plus multiple e-mail addresses) know when motion-detection or video-lost alarms occur. A recording of the scene will also be available at the capture station.

Related Topics:

6.2.1 Introduction / Activate the Alarm Receiver

Motion detection at a capture station can be set to trigger a recording, and a remote station can be alerted as well. These 'Alarm alerts' are viewed through the "Alarm Alert Receiver".

To activate the Alarm Alert Receiver, start your remote software, and click the Alarm Alert icon (head/portrait) once.

The Alarm Alert Receiver can also be run on its own:

Startup: Run **Alarm Receiver.exe** in the folder for your NetVision software (under C:\Program Files\Digital Surveillance Recorder\...).

Shutdown: Right-click the Alarm Alert Receiver symbol (head/portrait) on the right-hand side of the **Windows** task bar, and select **Exit**.

6.2.2 Using the Alarm Receiver

When a new alarm comes in from a surveillance station, the alarm alert receiver will open automatically showing the capture station (IP address) and camera number. The receiver will continue beeping until you select the alarm message (camera number), and click **[Acknowledge]**.

Viewing Previous Messages Manually: To open the alarm alert receiver manually, right-click the Alarm Alert Receiver symbol (head/portrait) on the right-hand side of the **Windows** task bar, and select **Restore**.

Tip: These alerts may also include a custom sound (WAV file available on your PC). This sound will play once each time an alert is received.

6.2.3 Working with the Image Loop, Auto Camera Display, and Auto Recording Features

The alarm alert feature can be set up at each remote station to:

- Repeatedly show 5 - 10 frames from the camera;
- Display the live camera automatically;
- Record the live camera automatically for a pre-set duration.

These items will appear in separate windows which can be set to close automatically, or stay open until you close them. (Live camera images will appear in the camera-viewer window of the small remote module.

For additional information, review the next topic ("Manually viewing..."). Everything after the first sentence applies here as well.

Related Topics:
13.2 Setting up the Alarm Alert Receiver

6.2.4 Manually Viewing the Associated Camera Image

To view the live camera image in a small window, double-click the camera number at the beginning of the message line. If prompted to log in, enter a username and password that is registered at the capture station.

After checking the camera, be sure to respond appropriately once you determine what's going on. This may include calling the Police or other security personnel.

To close the camera window, click the **X** in the top-right corner. You will be prompted with "**Do You want to Clean up All Passwords?**":

[Yes]: If the capture station is set for remote password protection, you'll have to enter your remote user-name and password the next time you use this feature.

[NO]: The capture station will remember the last password you entered.

Tip: You can also playback the recorded video file. (see "Related Topics").

Notice: A video/signal lost indication can be due to hardware failure, a bad connection or a power fault, however, since it may be due to foul-play at the site, it's often best to proceed with caution, and **treat the event as a break-in**.

Related Topics:
7 Playing or Downloading Video Recordings;
22 Using the Small Remote Module

6.3 Responding to Alarm-Alert Email

A capture station can let one remote station (plus multiple e-mail addresses) know when motion-detection or video-lost alarms occur. A recording of the scene will also be available at the capture station.

E-mail alerts can alert any designated e-mail recipients whenever a motion-triggered recording occurs. (Email with some type of instant notification is recommended.)

Take note of the indicated capture station (IP address), camera, and time of the event. Then, start your remote station software, connect with the capture station, and view the indicated camera (and/or play the recorded alarm video) as desired.

Be sure to respond appropriately once you determine what's going on. This may include calling the Police or other security personnel.

> **Notice:** A video/signal lost indication can be due to hardware failure, a bad connection or a power fault, however, since it may be due to foul-play at the site, it's often best to proceed with caution, and **treat the event as a break-in**.

6.4 Alarm / Recording Status Indications at a Capture Station (Camera Number Colours)

6.4.1 Indications in the "Display" Area (Top-right)

Red Line Above Camera Button: Video motion-detection enabled (will auto-record when motion is detected);

Green Line Above Camera Button: Video motion sensing standing-by (e.g., outside of scheduled alarm-monitoring times);

Green Camera Number: A camera that is presently being displayed.

6.4.2 Indications in the "Record" area (middle-right)

Different types of recordings are indicated by the colour of each camera button:

- **Red Camera #:** Alarm/motion triggered recording ;
- **Light Blue Camera #:** Pre-alarm recording;
- **Yellow Camera #:** Instant/manual recording;
- **Green Camera #:** Scheduled recording.

Coloured lines above the camera buttons (in the "Record" area):

Red Line: External sensor being monitored for this camera--will record if 'tripped' (and/**or** pre-alarm recording is in effect; White camera #: External sensor only);

Green Line: External sensor monitoring and/or pre-alarm recording standing-by (e.g., outside of scheduled alarm-monitoring times);

6.5   Chatting On-line with a Capture Station

Remote surveillance stations can use the text 'chat' feature to initiate a 'conversation' with a capture station.

> **Tip:** You may need to use e-mail or the telephone to first ensure that someone will be at the capture station.

6.5.1   Connecting and Sending Messages from a Remote Station

> **Tip:** This is supported via dial up and/or internet as well (you may need to 'launch' your connection first).

Click the 'Chat' icon (bottom of the screen) to open the chat window. Then enter (or select) a capture station IP address (or its name on the network), and click **[Logon]**.

If prompted for a user name and password, enter these, and click **[OK]**.

> Note: If your name and password entries are erased, this means they are not recognized by the capture station (chat server).   Ensure you typed them correctly.   If they are still not accepted, contact the capture station and have your privileges set up for the chat server.
>
> If You are not prompted for a User Name and Password: This means that either the capture station is set to give anyone access to the chat feature, or your username and password entered when logging into the remote station software have been accepted.

To send a message, click within the 'message' box, type your message, and click **[Send]**. When you see a response, repeat these steps to send a response.

6.5.2   Responding to Chat Messages (Capture Station)

- Open the chat server: Right-click the 'Chat Server' icon on the windows task bar, and select **Restore**.

- Select (double-click) the desired user in the connection list;

- Click within the 'message' box, type your response, and click **[Send]**.

> **To End a Remote User's Connection:**   Select the user (double-click), and click **[Terminate]**.   (If they weren't finished, they can simply log on again.)

6.5.3   Saving a 'Chat' Session as a Text File (remote station or capture station)

Click **[Save]**. In the next screen, set the filename and location as desired, and click **[Save]** again.

Related Topics:
11.7 Viewing Remote User Sessions;
11.2 Remote Users and Permissions
      (+ HTTP server port)

7 Playing or Downloading Video Recordings

7.1 The Video Playback Feature

Beginning with version 2.2, Netvision provides two playback tools for remote stations as well as capture stations:

New-Style Player: • New look; • Smart Motion Search (looks for motion within selected files, and creates new files from the 'motion-detected' sections); • Streaming mode selections (for slower connections);
• Searches separately for regular recordings, backed up files, or 'motion-found' files;
• Results organized by date in folders on the left; • Ability to print the file-list, and backup files to another location/media;

Older 'Quad-Style' Player: Up to four videos at a time.

With both player versions, you can preview files associated with a specific camera, and play selected file(s) manually, or with 'auto-start'. 'Continuous Playback' allows automatically stepping through files in sequence.

> **Tip:**   NetVision uses a 'streaming' playback approach--allowing the video to start playing right-away (without having to be downloaded 1st).

> **TechTip:** Playing capture station recordings from a remote station provides much less 'loading' on the capture station than playing the videos on the capture station itself. As well, it is best to 'download' files to a remote station, and then play them locally (esp. for pause/resume, etc.)

Filename / Location Reference:

Captured video files are stored under **\dsr-video\image** on the specific PC, in folders for each 'server' (PC name or IP address), camera name, and date.

> **Exceptions:** • Backed up files are placed in **\dsr-Backup\image** on the drive selected during the backup process; • 'Motion-found' files created by the Smart Search feature are located under **\dsr-postmotion\image**; • All files are placed in folders for each 'server' (PC name or IP address), camera name, and date.

> **Tips:** • The first letter of the filename indicates the type of recording: Alarm-triggered, Pre-alarm, Scheduled, or Manual Recording; • The NetVision software provides an alternative method for selecting these items; • Videos are recorded as standard "AVI" (or MPEG) files that can be played back using NetVision, or any typical Windows media player program; • You can minimize the playback window by clicking [_] in the top-left corner; • Similarly, you can 'collapse' the playback **and** search screens by right-clicking anywhere on the blue title-bar.

7.2 Step 1: Open the Video Player

At a **remote station**, click the blue 'Play' button in the bottom-left corner. At a **capture station**, click **[Playback]** in the panel near the bottom-right.

> Remote **Module** Software: Click the dark green 'Play' button.
>
> Tip: To close the playback window when finished, click the **[X]** in the top right corner.

Then, select **[Playback]** when prompted (as opposed to [ATM Playback]).

Related Topic: 27.5 Playing ATM Video Recordings

New Style Player: Click the 'search' button (folder/binoculars) at the bottom of the playback screen.

Older 'Quad' Player: Click the 'search' button (folder/binoculars) at the bottom of the playback screen.

Then, click the 'search' button (folder/binoculars) at the bottom of the 'quad' playback screen.

Instructions Bubble: If an instructions bubble is present, you'll need to click once to close the bubble, and then again to open the file-search screen.

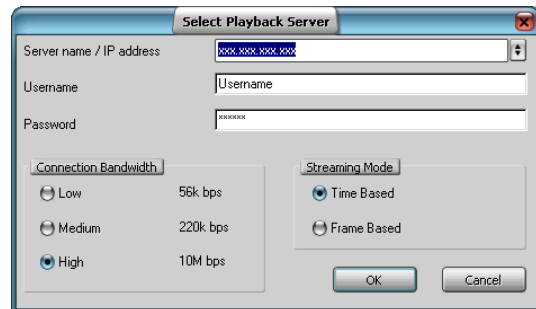## 7.3 Step 2: Local / Remote, and Connection Screen

A remote connection screen will appear automatically if your last session was not local.
Tip: Close the screen and select 'local' if desired.

Local: Select this for video files on your present PC;

Remote: Select this to access video files on some other PC (capture station).

New Style Player: Click **[Select]**.

ServerName/IP Address: Enter (or select) the IP address or PC name of the server PC (computer that contains the video files).

User Name: Enter your (valid) remote username as set up at this specific server PC.

Password: Enter your (valid) remote user password as set up at this specific server PC.

Connection Bandwidth: Indicate your connection speed (Low for dial-up; Medium for cable/DSL; High for a network connection).

Tip: This sets the streaming playback image quality and frame rate as suitable for your type of connection.

Streaming Mode (new-style player only):

- Time Based: File playback duration maintained (regardless of your connection speed). Individual frames may be dropped.

- Frame Based: Every frame will be shown no matter how long it takes.

When ready, click **[OK]**.

7.4 Step 3: Searching for Video/Alarm Files

7.4.1 3a) Select the Type of Files (new-style player only)

Normal: Any type of original recording files.

Backup: Files that had been backed up to some other location/media.

CDs and Portable Drives: To play files that had been backed up onto a CD or a portable drive, ensure the CD or portable drive is accessible before starting your search.

Motion Search: File segments created by a previous 'Smart Motion Search'.

Related Topics: 7.5 Smart Motion Search
              (Optional, New Style Player Only)

7.4.2 3b) Select the Server, Camera, and Date

Server Name
Select the 'server' (PC name or IP) that has the video files.

Notice: For an IP Address, the camera list may not be available until you open the "server" drop-list, and select the (detected) PC **name** in the list.

Video Source			Date		
Server name	NV22	⬍	From	2003/04/07	⬍
Camera title	Camera 01	⬍	To	2003/04/07	⬍

Camera
You can view videos associated with one camera at a time. Select the camera here to view the video files for that camera.

Date
New-Style Player: Select a "From" and "To" date to cover your desired date-range.

Old/Quad-Style Player: Select "All", or a specific day here.

Tip: You can also select start and end date/time at the bottom of the screen. (To use the pop-up calendar, click the button next to the Start or End date.)

7.4.3 3c) [Search Now] (new-style player)

This allows starting a search in the new-style player.

Old/Quad Player: The search starts as soon a you select a server, camera, and/or new date.

(If you need to close the file-list window, press the **Esc** key, or click **[X]** in the top-right corner.)

7.4.4 3d) Show or Hide Specific Types of Recordings

To show or remove specific types of recordings in the list, use the coloured '**Event**' buttons.

Colours indicate the type of recording:

Red: A motion / alarm-triggered recording;

Light Blue: A pre-alarm recording (immediately before motion was detected);

Yellow: A manual / instant recording;

Green: A scheduled recording.

File-Type Reference: The first letter of the filename, and the "Event" column show the type of recording:

A / ALM: A motion / alarm-triggered recording;
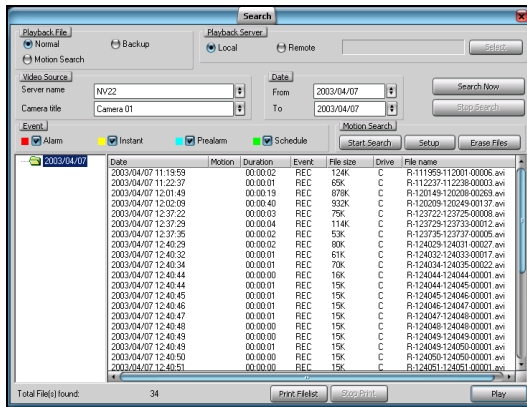
P / PRE: A pre-alarm recording (immediately before motion was detected);

R / REC: A manual / instant recording;

S / SCH: A scheduled recording.

3e) <u>**Locating File(s) in the List**</u>

<u>New-Style Player</u>: You can view files for one day at a time (select the folder for the desired day on the left).

Backup/Delete: The new-style player also allows you to backup or delete files if desired (one at a time). (**Right**-click a file and select **Backup** or **Delete** from the pop-up menu.)

> **Attention: Deleted files cannot be recovered. It is best to <u>check</u> your backups before deleting any files.**

<u>CDs and Portable Drives</u>: If your PC includes a CD burner, you can backup files onto CDs once they have been 'formatted' to be accessible through a drive-letter (e.g., using DirectCD). Similarly, portable drives can be used as long as they are available to the PC before you select "Backup".

<u>Related Topic</u>:
10.2 Managing Recorded Video Files (Housekeeping)

<u>Old/Quad-Style Player</u>: The files appear in a single list.

The main part of the screen shows a list of video files. You can sort by clicking any column heading, and move around using your mouse wheel, or the scroll bars.

3f) <u>**Old/Quad Player: Items at the Bottom of the File List**</u>

Date/Time, Coloured Bands, and Magnifying Glasses

The bottom of the screen includes arrows for changing the start and end date/times to narrow the list to a smaller range.

All recordings in the selected date/time-range are also indicated graphically as coloured bands at the bottom of the screen. You can use the 'magnify' and 'reset' buttons to zoom into a smaller date/time range, or return to the full range.

Coloured "Event" Buttons

Click these to show or hide different types of recordings in the list.

- **Red:** A motion / alarm-triggered recording;
- **Light Blue:** A pre-alarm recording (immediately before motion was detected);
- **Yellow:** A manual / instant recording;
- **Green:** A scheduled recording.

7.5 Smart Motion Search (Optional, New Style Player Only)

After searching for normal or backup files, you can select them and perform a 'Smart Motion Search' which looks for motion within the files, and creates new files from the portions that include motion. This is most useful for lengthy scheduled (or instant) recordings.

1) Perform a standard search (Normal or Backup) to obtain a list of the source files on a specific day.
   Tip: To ensure you have the desired files, right-click each file in turn, and select **Preview** from the pop-up menu.

   Related Topics: 7.1 The Video Playback Feature

2) For each file to be searched for motion, right-click the file and select **Motion Search** from the pop-up menu. **Tip:** You'll see an asterisk (∗) appear in the "Motion" column.

3) Configure the motion detection as desired:

   • With one of the files selected, click **[Setup]** in the Smart Motion Search area.

   • Select your desired parameters.
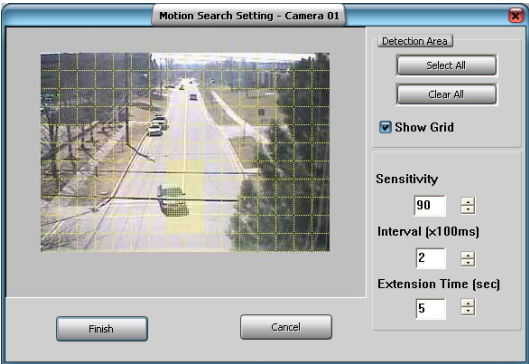
Detection Zones -- Main Area on the Form:
Click the desired areas of the frame that are to be monitored for motion;

Tip: You can also select or clear all portions of the screen using **[Select All]** or **[Clear All]**.

Detection Area:

- **[Select All]:** Selects all detection zones on the left;

- **[Clear All]:** Clears all detection zones on the left;

- **Show Grid:** This shows/hides a 'grid' to indicate the selectable detection zones.

Sensitivity: This sets a relative threshold for motion detection. Leave this as-is unless motion is being detected falsely (or if it is not being detected when it should).

Interval (x100 ms): This sets how often the camera-view will be checked for motion (i.e., every xx tenths of a second).

Extension Time (sec): This sets how long the resulting files will be beyond the motion-detected portion (up to 30 seconds). With intermittent motion, a smaller value can result in a larger number of smaller files being produced.

4) Click **[Finish]** to close the set up window.

5) Click **[Start Search]** to perform the Smart Motion Search.

6) When the search finishes, a "**!**" will appear in the Motion column for any files in which motion was found.
   Tip: "Motion-found" files are placed in **c:\dsr-postmotion** in folders for each server/PC, camera, and date (the date of the original recording).

7) To view the files, perform a standard search to obtain a list of the source files on a specific day. Be sure to select **Motion Search** files (instead of "Normal" or "Backup"), and select the correct Server, Camera, and Date-range pertaining to the desired "motion-found" files.
   Related Topics: 7.1 The Video Playback Feature

7.6 Step 4: Playing a Video

To view a small snapshot of the first frame, right-click the file, and select **Preview**.

Alternative: With the old/quad-style player, you can also select the file, and click **[Preview]** near the top-right corner of the screen.

To Close a Preview: Click any filename in the list, or repeat the steps above to preview another file.

To play a video, double-click the date portion of the desired file. (You will be returned to the playback window.)

Alternative: You can also select the file, and click **[Play]** at the bottom (new-style player), or **[Apply]** in the top-right corner (old/quad player).

To copy a video to your (remote station) PC, right-click the file, and select **Download**.

Downloaded files are stored under C:\dsr-video\Image\CaptureStation(orIP)\Camera\Date

Instant Playback: If the "Instant Playback" feature is enabled, videos that are presently being recorded can be played back. **Note:** This closes the present recording file (to allow it to be played-back), and starts a new recording file.

7.6.1 Buttons -- New-Style Player

Position 'slider': This shows your relative position within a video. You can drag the slider to quickly skim through a video.

Playback Controls (near the top right): These buttons allow controlling video playback:

- **Play:** Starts playing your selected video. (In 'quad' playback mode, select the desired video window 1st.)
- **Pause:** Stops the video playback. (Selecting "Play" will continue from the present position.)
- **Stop:** Stops the video playback. (Selecting "Play" will restart from the beginning.)
- **Backward:** Rewinds the video one frame at a time;
- **Forward:** Advances the video one frame at a time
- **Previous File:** Jumps to the beginning of the previous video file (in the present folder/list);
- **Next File:** Jumps to the beginning of the next video file (in the present folder/list);

Speed: This allows setting the relative playback speed.

Autostart: Sets whether or not you need to click the play button to start playing the selected video(s) (after selecting files the file list);

Cont. Play: All newer recordings in the folder will be played (in the order they were recorded), starting with your (oldest) selected file. If Cont. Play is not selected, you will need to click the play button once.

Zoom: This allows zooming in or out of the current video image. (100% is normal size.)

Snapshot Buttons: These allow grabbing a video frame.

For details, browse forward to "Viewing and Printing 'Snapshots'".

Date/Time, Coloured Bands, and Magnifying Glasses at the Bottom

The bottom of the screen includes arrows for changing the start and end times to narrow the list to a smaller range.

All recordings in the selected time-range are indicated graphically as coloured bands at the bottom of the screen. You can use the 'magnify' and 'reset' buttons to zoom into a smaller time range, or return to the full range.

● **Red:** A motion / alarm-triggered recording; ● **Light Blue:** A pre-alarm recording (immediately before motion was detected); ● **Yellow: A** manual / instant recording; ● **Green:** A scheduled recording.

7.6.2 <u>Buttons -- Old/Quad-Style Player</u>
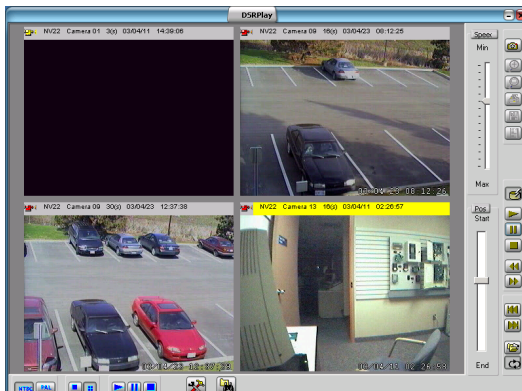
In the bottom-left corner of the player, select NTSC or PAL, and the display mode (1 vs. 4 videos at a time--'quad' playback mode).

'Quad' playback mode: The video will appear in the last-selected playback window, and playback controls pertain to the selected playback window only (click the title-bar for the desired one first). **Exception:** See [Play All], [Pause All], and [Stop All], to follow/below.

Speed 'slider': This allows setting the playback speed (drag the slider and watch for your desired speed--from 0.1x up to 10x).

Top-Right Buttons: These allow grabbing a video frame (details in a following section / below).

Position '**slider'**: This shows your relative position within a video. You can drag the slider to quickly skim through a video.

Buttons Near the Bottom Right: These allow replaying or resuming a video, pausing, stopping, and jumping to the next or previous file. These buttons appear yellow when available.

Autostart: Sets whether or not selected video(s) will start playing automatically (when opened in the file list);

Play: Starts playing your selected video. (In 'quad' playback mode, select the desired video window 1st.)

Pause: Stops the video playback. (Selecting "Play" will continue from the present position.)

Stop: Stops the video playback. (Selecting "Play" will restart from the beginning.)

Backward: Rewinds the video one frame at a time;

Forward: Advances the video one frame at a time

Previous File: Jumps to the beginning of the previous video file (in the present folder/list);

Next File: Jumps to the beginning of the next video file (in the present folder/list);

Open Multiple Files: Allows playing multiple files that you selected in the file list. If "Continuous Playback" is not selected, the software will wait for you to click "Play" to start subsequent files.

If "**Continuous Playback**" is also selected, all newer recordings in the folder will be played (in the order they were recorded), starting with your (oldest) selected file.

[Play All], **[Pause All],** and **[Stop All]:** These buttons (bottom-left) allow playing/resuming, pausing, or stopping the videos in all four screen areas at the same time.

Tip: Otherwise, you select the title bar for one video, and use the controls on the right (previous).

7.7 **Window Options and File Properties** (Old/Quad Player only)

[Utility]: This button (bottom of the playback window) allows setting playback options (for the selected playback area), and viewing properties (for the presently-displayed video file).

> Tip: If in 'quad' playback mode, click the title-bar of the desired window first.

🗀 **Options** 🗀**:** This allows setting the items to appear in the title bar of the present playback window, and setting the image size (original size, or fit-to-window).
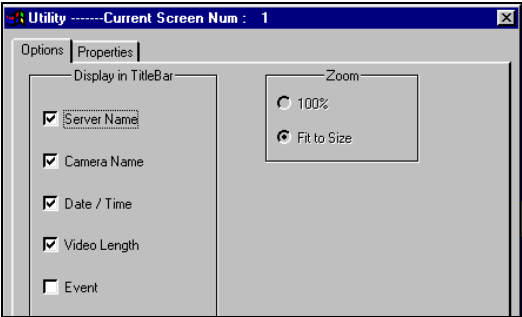
🗀 **Properties** 🗀**:** Click this to view detailed information on the file that is presently in the playback window.
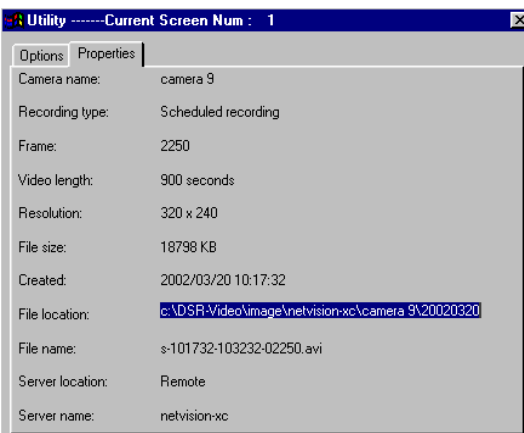
Related Topics:
7.1 The Video Playback Feature
16.4 Show Date and Time in Video Image;
16.1 Set up Cameras and Titles

7.8 Viewing and Printing 'Snapshots'

You can take 'snap shots' of desired images from a video file, and print or save them as desired.

First, open/play the desired video, and use the 'position' slider, or the pause and play buttons to locate the desired image. Then, use the 'snap shot' buttons as follows:

Snapshot Buttons

New-Style Player: The snapshot buttons appear in a different layout near the bottom-right, but with similar icons. Operation is as described below.

Camera (Snap shot): This puts you into snapshot mode, and activates the other snapshot buttons;

Video Camera (Video): This returns you to normal video playback mode.

Old/Quad Style Player: Click the camera button again.

Magnifying glass (+/zoom in): To enlarge (zoom into) a portion of the video frame, click-and-drag a box around the desired area, and then click this button;

Tip: You can only zoom once. To reframe your image, click 'Zoom Out', and then try again.

2nd Magnifying glass (zoom out): Select this to view the full image after zooming in;

Printer button (print): This allows printing your snap shot.

(Click the 'printer' button, and then respond to the print-details screen when it appears.);

Diskette button (save): This allows saving your snap shot as a "BMP" file. (Browse for the desired folder, and click **[OK]**.)

Page symbol (Printer Setup): This allows setting up header, disclaimer, and comment text to appear on printed snapshot 'reports'. Enter your desired text. Click **[Header/Disclaimer]** to access those items. When finished, click **[OK]** to close each screen as needed.

Managing Snap Shot Files: The filename will be based on the camera number, video recording date, and a 'counter' value. **Tip:** You can use the Windows Explorer to locate the file and make copies, or change the filename as desired.

To close the playback window when finished, click the **[X]** in the top right corner.

Related Topics: 7.1 The Video Playback Feature

8 Viewing Live Cameras

8.1 Viewing Cameras from a Remote Station

From a remote surveillance station, you can view up to 16 cameras at the same time. These can be all from the same capture station, or in different locations.

> **TechTip:** For multiple capture stations set for specific users, the capture stations must all be set up with the same user name and password for you (entered when you start the remote software). Alternatively, you can exit and restart the remote station software if you need to enter a different login name and password.
>
> Custom Titles: Each camera-view can include up to three custom titles (that are set up at the capture station.)
>
> Audio: One camera at each capture station can have a microphone associated with it. This sound can also be heard at authorized remote stations. Related Topics: 16.9 Remote Audio Monitoring
>
> Connection vs. Performance: Good performance for remote viewing and playback greatly depends on your connection to the internet and/or capture station. Dial-up connections provide poorer performance.

8.1.1 Connecting to a Capture Station

Double-click a capture station in the list near the upper-right corner of your display (or select a station and click the 'Connect / Refresh' button). Then, watch for a success message in the 'Status List'. (You can use the small scroll bar at the bottom to view longer messages).

> **Tip:** If your desired capture station is not in the list, refer to: Related Topics: 13.3 Station List (Identifying the Capture Stations)

> **TechTips:** For a capture station to be available, its software must be running (although no one needs to be logged in there).
>
> If the connection fails due to an incorrect user name or password, you can shut down and restart the remote station software, and login as the correct user. You may also need to contact the capture station to ensure your name and password are set up.

8.1.2 Viewing Cameras

After connecting, you can:

- Select NTSC or PAL (top-right corner);
- Select the display mode for your desired number of cameras (1, 4, 9, or 16);

  SVGA: With 800x600 screen resolution (SVGA), you can view 1, 4, or 9 cameras at a time. If you select 16 camera mode, you will be asked to switch to 1024 x 768 if needed.
  (QuickRef: **Right**-click Windows desktop, ⇨Properties, ⇨Settings⬚, ⇨1024x768, ⇨[OK]).

- View a specific camera: Double-click a desired camera in the capture station list
(or select a camera, and click 'OnLine View'); **Tip:** If a [+] appears instead of the camera list, click the [+] to view the list.

If the Camera-View Is Not Displayed: The username and/or password that you entered during login may not be registered at the capture station. (You can also try shutting the software down and logging in again.)

Multi-Camera View: If all camera windows are already being used, select the desired window (small green button, top left) before double-clicking the camera.

Blue: A blue camera icon indicates a camera that is already selected in one of the four camera windows.

Buttons in Top Right Corner of Camera View: These allow removing/stopping a camera-view **[X]**, starting or stopping recording, adjusting a PTZ camera, or accessing additional PTZ controls. (see "Related Topics").

8.1.3 Disconnecting

To quit viewing a single camera, click the **[X]** near the top right corner of the camera-view.

To quit viewing a capture station, **select the capture station**, and then click the "Disconnect" button near the top-right corner of the main screen.

Related Topics:
8.3 Changing a Camera's View (Pan/Tilt/Zoom);
9 Recording Camera-Views;

8.2 Viewing Cameras at a Capture Station

At a capture station, you can:

- Select a display mode (1-16 cameras) using the buttons near the top right corner of the screen.

Tip: Try the different display modes to see which ones you like. For maximum frame-rate, be sure to display no more than one camera from each capture board at the same time.

- Then, select (and deselect) cameras to view (use the buttons under "Display", top-right).
- Set the display to step through cameras sequentially;
- Double-click a camera to view it full-screen (and double-click the large image to return to the previous view).

Note: If instant-recording is enabled, double-clicking starts a recording as well. (To stop recording, click the camera button in the "Recorder" area on the right.)

Tips: A green camera **number** indicates a selected camera; To view the camera number for a specific image, **hover** the mouse over the camera-image and wait 1-2 seconds (do not click the image).

Custom Titles: Each camera-view can include up to three custom titles.
Related Topics: 16.1 Set up Cameras and Titles

Microphone: One camera at each capture station can have a microphone associated with it.
Related Topics:
16.7 Enable Audio for One Camera

Multi-Camera Views: In general, camera numbers are associated with a specific screen area. In view-modes that do not show all cameras at once, only the cameras associated with **different** screen areas can be viewed at the same time.

Screen Area ↘	Camera #s by Screen Area			
NetVision Model ⇓	1	2	3	4
4 cards, 16 cameras	1-4	5-8	9-12	13-16
2 cards, 8 cameras	1-2	3-4	5-6	7-8
1 card, 4 cameras	1	2	3	4

Camera 1-4	Camera 5-8

Camera 9-12	Camera 13-16

Tip: When showing only 4 cameras, the 8 camera desktop allows toggling between odd and even cameras.

Related Topics:
8.3 Changing a Camera's View (Pan/Tilt/Zoom);
9 Recording Camera-Views;
17.2.5 Misc. ☐ (see "Instant Recording")

8.3 Changing a Camera's View (Pan/Tilt/Zoom)

8.3.1 Introduction

For cameras that support PTZ control, you can zoom in or out, and 'aim' the camera as desired. This can be done at the capture station, or remotely.

PTZ Permissions: Only one person can control a specific PTZ camera (port) at a time. Remote access to PTZ cameras is based on remote user permissions set up at the capture station. Any remote PTZ user can be bumped/blocked by an operator at the capture station, or another remote user assigned a higher PTZ priority.

PTZ Control after Start-Up: The PTZ server has a delayed start-up to allow Windows services to stabilize. (The PTZ feature will not be available until 1 minute (approx.) after the capture station is re-started.)

8.3.2 PTZ Control from a Remote Station

Connect to the capture station and open/view the desired camera.
Related Topics: 8.1 Viewing Cameras from a Remote Station

Then, click the PTZ icon in the top-right corner of the camera image.

(Remote **Module** software): Click the PTZ icon. Then, enter the capture station IP address and a valid remote user name, and click [OK]. Note: The remote **module** uses the same PTZ control as a capture station (to follow/below).

PTZ Not Available: This may mean that someone with higher PTZ priority is presently controlling the camera.

Tip: The PTZ speed control and other advanced PTZ features are available through the "More PTZ Function" (folder) button (after you click the PTZ button). **Note:** For cameras connected through a switcher, you'll need to click the folder icon, and set the **[Monitor]** value first (switcher port associated with this camera).

To 'aim' the camera, 'hover' your mouse around the camera-view, and watch for the cursor to change to an arrow or magnifying glass. Then, click-and-**hold** the image with the cursor showing the desired action. To zoom in, click the centre (magnifying glass). To zoom out, **right**-click the centre (magnifying glass).
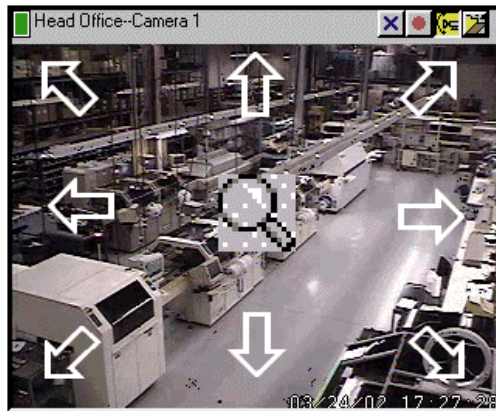
To set the panning speed, see "**Other PTZ Features",** to follow.

When finished, click the PTZ symbol again.

8.3.3 PTZ Control at a Capture Station

After logging in, click the PTZ button near the **bottom**-right corner of the main desktop (a narrow form will appear on the right). Then, select the camera number (beneath "model"), and click **[Connect]**.

Exception: For cameras connected through a switcher, you'll need to set the **[Monitor]** value first (switcher port associated with this camera).

To 'aim' the camera, use the arrow buttons (click-click-click, or click-and-hold). To zoom in, or out, use the arrows **marked** "**Zoom**" (click-and-**hold**).
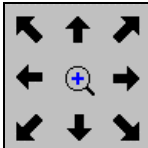
Tip: You can also zoom **in** using the magnifying glass.

To set the panning speed, see "Other PTZ Features", to follow.

To close the PTZ control screen when finished, right-click the PTZ icon in the top-**left** corner (or any blank area) of the form, and select **Exit**.

8.3.4 Other PTZ Features

On a **remote** station, these selections are provided through a separate 'folder' button (available when already using the PTZ feature). To close the screen, click the [**X**].

Pre-Set Positions: This feature alone may make you a believer in the value of PTZ cameras: You can store 20 pan/tilt/zoom positions and quickly recall them later. This allows one camera to 'pretend' it's 20 cameras.

To Save a PTZ 'Pre-Set': Set the camera position as desired, select an available 'pre-position' number, and click **[Set]**.

Tip: Store the most common/useful ones in the first 4 positions (available through buttons 1-4 thereafter). To check if a pre-set is available, see the next topic.
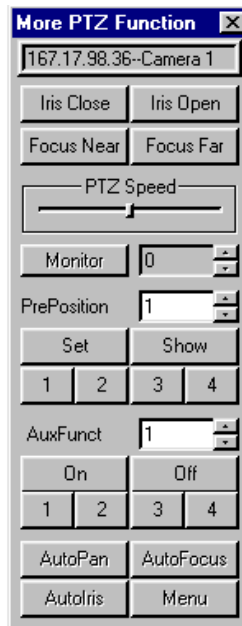
Remote Station ⇧

Capture Station ⇨
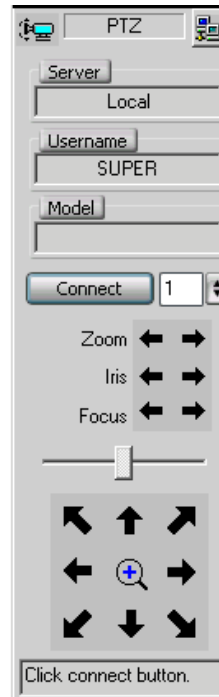
To Show a Pre-Set PTZ Position: The first four positions are available by clicking **[1]**, **[2]**, **[3]**, or **[4]**. For any pre-set position (1-20), select (or enter) the position number, and click **[Show]**.

Iris (Close/Open, or Arrows): Allows manually brightening or darkening the camera image (iris).

Focus (Near/Far, or Arrows): Allows manually adjusting the focus for objects that are closer vs. farther away.

Tip: This is useful where the camera view is partially blocked by a nearer object in the frame.

PTZ Speed (Slider Bar): This allows increasing or reducing the panning speed.

Monitor: Pertains to cameras connected through a switcher. This is the camera ID/port on the switcher (receiver-driver ID).

AutoFunct: Allows selecting auxiliary functions that were previously set up (if available/supported).

AutoPan: Sets the camera for automatic panning (if available/supported).

AutoFocus: This returns the focus control to automatic (if available/supported).

> **Tip:** Selecting a pre-set position will also put the camera into auto-focus mode.

AutoIris: When pressed, the camera will automatically adjust to changes in brightness (if available/supported). When not pressed, the manual brightness (iris) control is in effect.

> **Tip:** Selecting a pre-set position will also put the camera into auto-iris mode.

Menu: Activates the on-screen menu (for cameras that support this).

9   Recording Camera-Views

In addition to scheduled and alarm-triggered recording at a capture station, manual (instant) recording can be done at a **capture station** (up to 16 cameras at a time--depending on your capture station model), and at **remote stations** (up to 16 cameras from any desired capture stations at a time).

Instant Playback: If the "Instant Playback" feature is enabled, videos that are presently being recorded can be played back. **Note:** This closes the present recording file (to allow it to be played-back), and starts a new recording file.

TechNote: Multi-camera recording at a capture station may cause a reduced frame rate.   For maximum frame-rate, be sure to display no more than one camera from each capture board at the same time.

Filename / Location Reference:

Captured video files are stored under **\dsr-video** on the specific PC, in folders for each 'server' (PC name or IP address), camera name, and date.

Remote Station: C:\dsr-video\Image\ CaptureStation**IP**\Camera\date

Capture Station: d:\dsr-video\Image\ CaptureStation\Camera\date
(on each applicable drive).

Note: At a capture station, you can set the drive(s) for recording.
Related Topics:
17.2 Recording Setup (in DSR Configuration)

Audio: One camera at each capture station can have a microphone associated with it. This sound can also be heard at authorized remote stations.
Related Topics: 16.9 Remote Audio Monitoring

Audio Recording: Audio is not recorded as a separate file. Instead, it is included in any local or remotely recorded AVI (or MPEG) files for the specific camera.

Legal Notice: The recording of live audio is subject to local bylaws. Be sure to find out if audio recording is restricted in your area before proceeding.

9.1   Recording at a Remote Station

Connect to the capture station and open/view the desired camera.

Related Topics:
8.1 Viewing Cameras from a Remote Station

Then, use the red button near the top right corner of the camera-image to start or stop the recording. (The button will appear yellow during the recording.)

Recording from a remote station is subject to your connection speed. Dial-up is **slowest**.

Alarm Alert Recordings: At applicable remote stations, the alarm alert feature can be set to automatically record (and/or only display) the associated camera/view each time an alarm alert is received.

Related Topics:
13.2 Setting up the Alarm Alert Receiver

9.2   Recording at a Capture Station

At a capture station, you can:

- Double-click a camera-image to zoom to full screen, and start recording (if "Instant Recording" is enabled);

- Start or stop recording by selecting camera numbers(s) in the "Record" area of the main screen (on the right);

- Click **[Record All]** to start or stop recording all cameras at the same time.

Tip: The camera number appears in yellow for any cameras that you select for manual/instant recording.

Recording Priority: Manual (instant) recording will override scheduled recording on the specific camera. (Scheduled recording resumes when you stop instant recording.)   Conversely, instant recording is not available while alarm recording or pre-alarm recording is in effect for a specific camera (and alarm recording will override all other types of recording).

Exception: Beginning with v2.2, you can change the recording priority if desired.
Related Topics: "Priority" tab under:
17.2 Recording Setup (in DSR Configuration).

Hard Drive Usage Bar: Check the bottom of the capture station screen for a hard drive usage indication. If the coloured bar is 2/3 of the way across or more, use the 'housekeeping' feature to free up disk space by deleting or moving files.

Mapped Drives: Recording to a mapped drive is subject to network speed/loading.

System Administration and Maintenance

10 Tasks Applicable to Remote Stations and the Capture Station

10.1   PC Date and Time

Especially for the capture station, it is important to ensure that the date and time are always correct--since this information is used to manage video recordings. There is normally no reason for this to vary, but it's still best to check it on a regular basis.

> **Tips:** The time is displayed on the right-hand end of the Windows task bar. To view the date, 'hover' the mouse pointer over the time. For details on setting the date or time, open the Windows on-line help (e.g., from the Windows Control Panel), and search for "Date".

10.2   Managing Recorded Video Files (Housekeeping)

10.2.1 Introduction to File-Management:

Recorded video files use up a lot of hard drive space. Failure to manage them properly can block recordings due to a hard drive being full.

> **Hard Drive Usage Bar:** Check the bottom of the capture station screen for a hard drive usage indication. If the coloured bar is 2/3 of the way across or more, use the 'housekeeping' feature to free up disk space by deleting or moving files.

You can manage files manually, and also set the system to delete older files every day at a certain time (self-housekeeping). Manual file management should be done on a regular basis to keep things running smoothly, and to ensure important video files are retained.

Related Topics:
11.4 Automatic Video File Management

> **Attention:** Deleted files cannot be recovered. It is best to **check** your backups before deleting any files.

Playback Feature: You can also backup or delete files through the search portion of the (new-style) playback feature. (**Right**-click a file in the search list, and make

your selection from the pop-up menu.) You can also search for and playback backed up files separately using the new-style playback feature.
Related Topics: 7.1 The Video Playback Feature

CDs and Portable Drives: If your PC includes a CD burner, you can backup files onto CDs once they have been 'formatted' to be accessible through a drive-letter (e.g., using DirectCD). Similarly, portable drives can be used as long as they are available to the PC when you start the housekeeping feature.

Filename / Location Reference:
Captured video files are stored under **\dsr-video** on the specific PC, in folders for each 'server' (PC name or IP address), camera name, and date.

Tip: The NetVision software provides an alternative method for selecting these items.

> **Backup Files: Capture Station and Remote Station:** *d*:\dsr-Backup\Image\CaptureStation\Camera\date (on each applicable drive).
>
> **Video Files: Remote Station:** C:\dsr-video\Image\ CaptureStation**IP**\Camera\date
>
> **Video Files: Capture Station:** *d*:\dsr-video\Image\ CaptureStation\Camera\date
> (on each applicable drive).

Note: At a capture station, you can set the drive(s) for recording. Related Topics:
17.2 Recording Setup (in DSR Configuration)

> **Tip:** The first letter of the **filename** indicates the type of recording: **A**larm-triggered, **P**re-alarm, **S**cheduled, or Manual **R**ecording.

> **File Type Tip:** Videos are recorded as standard "AVI" (or MPEG) files that can be played back using NetVision, or any typical Windows media player program.

Especially for the capture station, it is important to ensure that the date and time are always correct--since this information is used to manage video recordings. There is normally no reason for this to vary, but it's still best to check it on a regular basis.

10.2.2 Access the housekeeping feature:

At a Remote Station: Click the Housekeeping symbol (broom) near the bottom right corner.

At a Capture Station: (Logged in at the capture station), Select: [Utility], then [Housekeeping].
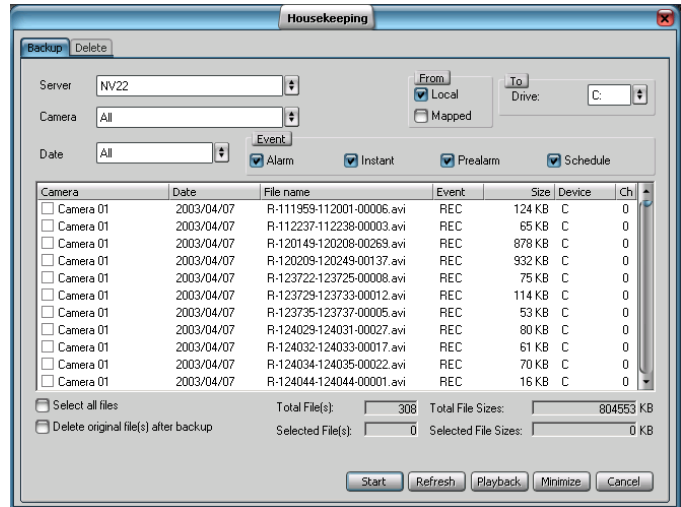
Then, select **Backup**☐ or **Delete**☐ depending on what you wish to do.

Refer to the descriptions that follow while working in the housekeeping screen.

To Exit from this Screen: Click **[Cancel]** near the bottom-right.

10.2.3 View a List of Video/Alarm Files (select server, camera, date)

Select the following items to view a list of associated alarm/video files:

Server
Select the 'server' (PC name or IP) that has the video files.

To include files on other PCs ('mapped' drives), ensure "mapped" is selected (under "From").

Camera
Select a desired camera, or **[All]**.

Date
Select a specific date, or **[All]**.

[Refresh]: Click this (bottom of the screen) to update the list for new recordings (per selected parameters).

10.2.4 Working with Video Files

The main part of the screen shows a list of video files. You can sort by clicking any column heading, and move around using your mouse wheel, or the scroll bars.

Select the types of recordings to be included in the list (alarm, instant, 'pre-alarm', and/or schedule):

File-Type Reference: The first letter of the filename, and the "Event" column show the type of recording:

A / ALM: A motion / alarm-triggered recording;
P / PRE: A pre-alarm recording (immediately before motion was detected);
R / REC: A manual / instant recording;
S / SCH: A scheduled recording.

To select (or deselect) a file, click the associated camera name in the 1st column.

Tip: Select the camera name, **not** the check-box.

(⇨)

Select All / Delete Original...
(Bottom-Left Corner)

- Select All Files: Selects (or deselects) all files in the list;

- Delete original file(s) after backup: If selected (✓), the files are effectively **moved** to the new location. If not selected, the files are **copied** to the new location.

To view a file first (i.e., before backup or deletion), select the file (click the camera **name**), and click **[PlayBack]** (in the row of buttons at the bottom).

Before backing up file(s), select the desired target drive letter near the top-right corner of the screen.

Mapped (Capture Station PC Only): This includes 'mapped' drives from other PCs in the list.

Note: Moved files will be placed under d:\dsr-video\Image\CaptureStation(orIP)\Camera\Date

To backup or delete your selected file(s), click **[Start]** at the bottom of the screen. When prompted to confirm, respond as desired (OK or Cancel).

Minimize: You can use the **[Minimize]** button to hide the housekeeping window for lengthy file management operations (such as when moving a large number of files through a slow network connection). To restore the housekeeping screen, click **[House keeping]** on the windows taskbar, and then click the yellow broom symbol in the top-left corner of the screen.

When finished, click **[Cancel]** to close the 'housekeeping' screen.

10.3 Checking your Software Version

10.3.1 Capture Station Software

Locator: (Logged in at the capture station as a "Supervisor"). Select: **[Utility]**, then **[System Information]**.

When finished, click **[OK]**, and then **[Close]** the utility menu.

10.3.2 Remote Station Software

Explore, browse, or search for **RemoteStation.exe**. Then, right-click the file, and select **Properties** (look in **Version ▢**).

Tip: From a link (shortcut) to the Remote Station software, you can right-click the shortcut, select **Properties**, and then **[Find Target]**. Then, right-click the file, and select **Properties**.

To quickly locate a program file from its shortcut: Right-click the shortcut, select **Properties**, and select **[Find Target]**. (Now you can right-click the file itself and select **Properties**.)

11 Tasks Performed at the Capture Station Only

11.1 Capture Station Users and Passwords

Related Topics: 11.2 Remote Users and Permissions (+ HTTP server port)

11.1.1 Capture Station Passwords

Two login names and passwords are initially provided for logging into the capture station:

Default Capture Station User Names and Passwords		
User name	**Password**	**(Permissions)**
Super	--	Access to everything; PTZ priority **0** (highest).
Operator	--	Everything except configuration tasks ([Utility] menu, and Control Panel ⇨ DSR Config.), plus deleting videos in the playback list; PTZ priority **1** (2nd highest)

Notes: Supervisors can also shut down the NetVision software. For operators, this is configurable. These passwords do NOT pertain to remote stations.

Locator: (Logged in at the capture station as a "Supervisor"),
Select: [Utility], then [Option Setting].

Select **Password** ⬜, and then enter your desired password (once under "Password", and again under "Confirm"). **Tip:** This helps to protect against saving an incorrectly typed password.

When finished, click **[OK]**, and then **[Close]** the utility menu.

11.1.2 Additional Local Users (Local User Manager)

You can set up additional local users with their own password if desired. You can also set whether each new user will be logging in at the "Super" level, or as an "Operator" (see the preceding table for permissions).

To set up local users and passwords, open the Local User Manager, and then refer to the descriptions that follow while making your selections.

Locator: At capture station (will prompt for "Supervisor" login),
Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted.
Then, double-click **Local User Manager** in the list. When the screen appears, make your desired selection(s).
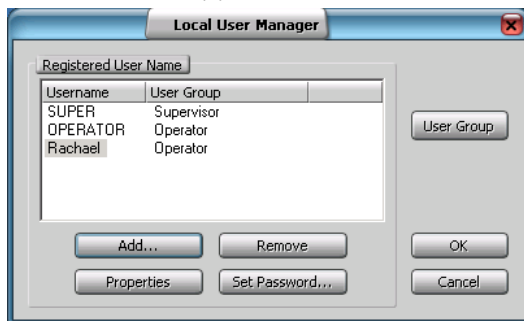
List of Users (Registered User Name)
This shows a list of the users that can log in locally, along with the login authority for each one (Supervisor vs. Operator).

[User Group] on the right

This helps to maintain PTZ access for remote users.

Group Name: Select "Supervisor" or "Operator";

PTZ Server / Idle Time Limit (min.): This causes any user of the selected type to be logged out of the PTZ feature if they stop actively using PTZ control for the duration entered here (1-9999 minutes, or 0 for "No Timeout").

Note: If using this feature, be sure to set this for both "Supervisor" and "Operator" (click **[Apply]** after the first one, and **[OK]** when finished).

Four Buttons near the Bottom

Except for "Add", these buttons pertain to the user you have selected in the list.

[Add]: Select this to create a new local user. Enter the name and password (twice) when prompted, and click **[Next]**. You will be advanced to [Properties] automatically to set the login level as "Supervisor" or "Operator".

[Remove]: Allows deleting a previously-added local user. (Select the user, and click here. When asked to confirm, click **[OK]**.

[Set Password]: This allows changing the password for a local user. (Select the user, and click here. Then, enter the new password (twice) when prompted, and click **[OK]**.

[Properties]: Select this to change the login-level for a previously-added local user. (Select the user in the list, click here, and then make your selections.)

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

11.2 Remote Users and Permissions (+ HTTP server port)

Remote access to capture station services are password-protected. Each server module can be set to allow access to:

- A person logged in at a remote station using any name and password (but they cannot be left blank), or;

- Specific users/passwords and permissions as defined through the Remote Services Manager.

Exception: Accessing video files through a shared folder on a network is restricted only by network access rights, and permissions set up when sharing the folder.

To set up remote users and permissions, open the Remote Service Manager, and then refer to the descriptions that follow while making your selections.

Locator: At capture station (will prompt for "Supervisor" login),
Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Remote Service Manager** in the list. When the screen appears, make your desired selection(s).

[Properties]: Select this to set up permissions for a remote user. (Select the user in the list, click here, and then make your selections).
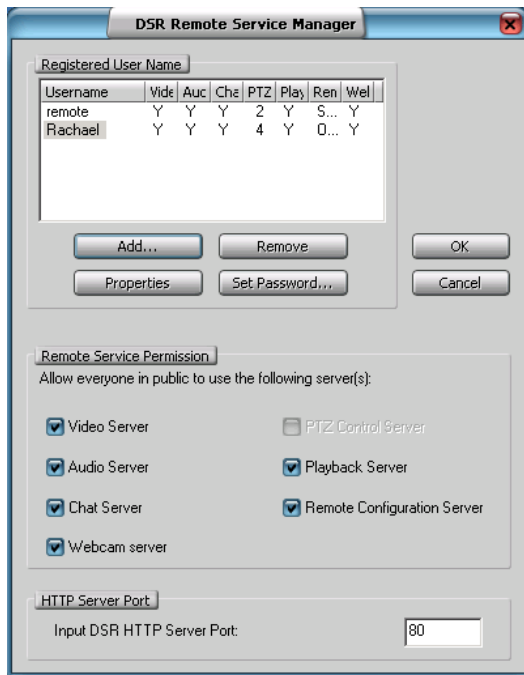
Top of the Screen

This window shows a list of remote users that have been set up.

Buttons in the Middle of the Screen

[Add]: Select this to create a new remote user. Enter the name and password (twice) when prompted, and click **[Next]**. You will be advanced to [Properties] automatically (to follow / below).

[Remove]: To delete a remote user, select the user in the list, and click **[Remove]**. When asked to confirm, click **[OK]**.

[Set Password]: Select this to change the password for a remote user. (Enter the new password (twice) when prompted, and click **[OK]**.

🗀 **Video Server** 🗀
This allows setting the selected user's ability to view cameras remotely. You can also limit the maximum duration for viewing sessions, and limit them to specific cameras if desired.

Related Topics:
7 Playing or Downloading Video Recordings

🗀 **Audio Server** 🗀
This allows setting the selected user's ability to remotely monitor audio, and set an optional time-limit for sessions.

Related Topics: 16.9 Remote Audio Monitoring

🗀 **Chat Server** 🗀
This allows setting the selected user's ability to use the 'chat' feature to communicate with an operator at this capture station.

Related Topic:
6.5 Chatting On-line with a Capture Station

📂 PTZ Control Server 📂

This allows setting the selected user's ability to remotely control a PTZ camera (pan/tilt/zoom). The priority-level setting (required) determines who 'wins' if multiple remote users try to control the same PTZ camera at the same time.

> Note: The assigned PTZ priority must be different for each remote user (priority 0 is highest; remote users can be 2 - 99). Note: An operator at the capture station has the highest PTZ priority of all.
>
> Related Topics:
> 8.3 Changing a Camera's View (Pan/Tilt/Zoom);
> 16.3 Pan/Tilt/Zoom Activation and Set Up

📂 Playback Server 📂

This allows setting the selected user's ability to play videos remotely.

Related Topics:
7 Playing or Downloading Video Recordings

📂 Remote Configuration Server (DSR_Relay) 📂

This allows setting the selected user's ability to configure various items remotely (using a web browser). **Note:** Under "Login As", be sure to select "**Super**".

Related Topics: 23 Remote Configuration

📂 Webcam Server 📂
This item is for future use.

Remote Service Permission (Lower-middle portion of the Screen)

Allow everyone...: Select the features (server modules) that are **not** to be restricted to specific remote users.

HTTP Server Port

Input DSR HTTP Server Port: This sets the port to be used by NetVision's built-in HTTP server. **Ensure this is set as 80 (not 8080).**

Exception: If you need to continue running another HTTP service (such as Microsoft IIS) for some other purpose on this capture station, ensure the two services are not using the same port).

Notice: If this is NOT set to 80, everywhere someone needs to enter an IP address to access this unit, they will need to append the IP address with a colon and this port number (e.g., xxx.xxx.xxx.xxx**:8080**). **If this applies to you, ensure your remote users are aware of this!**

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

> **Attention:** To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

11.3 Viewing the a List of Motion-Detection Alarms

A capture station can be set to record automatically when motion is detected during scheduled times for each camera. A log of all such alarm-triggered recordings is stored in a text file (one file per day).

> **Tip:** Video / signal lost conditions are recorded here as well.

To view the file in your default text editor (e.g., notepad), locate and open (double-click) the indicated file.

> **File Locator:**
> d:\DSR-Video\Log\Alarm\yyyymmdd.txt

("d" represents the drive letter of the recording hard drive.)

11.4 Automatic Video File Management

You can set the capture station to automatically delete older alarm/video files each day at a desired time.

Attention: This feature should be used only in conjunction with manual file-management (housekeeping). You must be sure to copy or move any alarm/video files that you wish to keep.

Related Topics:
10.2 Managing Recorded Video Files (Housekeeping)

> **Locator:** At capture station (will prompt for "Supervisor" login),
> Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Optional Features Setup** in the list. When the screen appears, select **Self-Housekeeping** ☐, and then make your desired selection(s).

Enable clean up: Select this to enable the self-housekeeping feature.

Number of days retained: This determines the 'age' of files that will be retained (all older files in the **..\dsr-video\image** folder will be deleted at the specified time).

Start Time: Use the up/down arrows to set the time of day for the process to start.

> Tip: For dedicated access to the hard drive, select a time of day when recordings are unlikely to occur.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

> **Attention:** To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

11.5 Backing Up or Restoring Configuration Settings

You can backup your capture station settings to protect against data loss (or operator error).

Diskette Needed: This requires a 3.5" diskette (to be placed in the "A:\" drive of the capture station).

Attention: This should be done on a regular basis to help protect against loss of data. This should also be done before re-installing the NetVision software.

The settings that will be saved include:

- Camera titles, and which cameras are enabled;
- Recording selections, plus alarm/motion triggered recordings;
- The present/active alarm-recording schedule.

Locator: At capture station (will prompt for "Supervisor" login),
Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Utility** in the list. When the screen appears, make your desired selection(s).

[Backup]: Select this to copy your configuration settings to a floppy diskette.

Place a blank 3.5" diskette in the **A:** drive first, then click **[Backup]**.

When finished, place the diskette(s) in a safe, dry location.

Attention: Due to the imperfect nature of magnetic media, it is a good idea to make copy(ies) of the diskette, to protect against one diskette failing.

[Restore]: Select this to copy configuration settings from a previous backup-diskette.

Place the backup diskette in the **A:** drive first, then click **[Restore]**.

When finished, click **[Cancel]** to close the backup/restore menu, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

11.6 Viewing Changes Made through the "Utility" Menu

All changes made through the "Utility" button on the capture station desktop can be logged in a text file.

Note: This feature can be turned on and off.

To view the file in your default text editor (e.g., notepad), locate and open (double-click) the indicated file.

Location and Filename:
d:\DSR-Video\Log\Trail\Trail.txt

("d" represents the drive letter of the recording hard drive.)

Format and Example:

Date	Time	User	Menu / Item
yyyymmdd	hhmmss	xxxxx	xxxx: xxxxxxx
20010930	235959	Super	Option: Password

11.7 Viewing Remote User Sessions

Remote connections to a number of the server modules can be viewed at the capture station.

In some cases, you can terminate a remote user's connection if necessary.

Locator: NetVision running on the capture station (logged in to NetVision or not), Windows task bar in view.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Playback Sessions: To view remote users (by IP address) who are presently playing videos through the playback server, double-click the playback-server icon on the task-bar . When finished, click **[Close]**.

If "**Record to Log File**" is selected, you can use a text editor to view (or print) a list of previous playback sessions.

**Filename and Location:
d:\dsr-video\Log\PlaybackServer\yyyymmdd.txt**

PTZ Sessions: To view remote users who are presently controlling PTZ cameras, right-click the PTZ-server icon on the task-bar, and select **Restore**. When finished, click **[Close]**. If you need to disconnect a remote user, select the user, and click **[Disconnect]**.

Chat Sessions: To view remote users that are presently connected to the chat server, right-click the chat-server icon on the task-bar, and select **Restore.** When finished, click the **[X]** in the top-right corner. If you need to disconnect a remote user, select the user, and click **[Terminate]**.

To Use the Chat Feature: (see "Related Topics").

Remote Viewing Sessions: To view remote users that are presently viewing live cameras, double-click the video-server icon on the task-bar.

Tip: The top half of the screen shows active connections, and the bottom half shows a list of previous connections. When finished, click the **[X]** in the top-right corner.

If you need to disconnect a remote user, select the user, and click **[Terminate]**.

Remote Audio Monitoring Sessions: To view remote users that are presently monitoring audio from the capture station, right-click the Audio Server icon on the task-bar, and select **Restore**.

Tip: Audio monitoring sessions will be listed in the window. When finished, click the **[X]** in the top-right corner.

If you need to disconnect a remote user, select the user, and click **[Terminate]**.

Remote Configuration (DSR_Relay Server): To view remote configuration activity, double-click the video-server icon on the task-bar.

Tip: Remote Configuration actions will be listed in the window. When finished, click **[Close]**.

Related Topics:

System Configuration

Configuration Introduction

Capture Station: Most system configuration is done at the specific capture station. All desired features must be enabled and set up. (Browse forward through the topics that follow, or look for "Configuration" in the "Contents" to see which topics are of interest.) Also, be sure to **disable** any camera numbers that are not being used.

Remote stations: A few items are configurable at a remote station, including:

- Basic Set-up (reconnect options, and video compression/file type);
- Alarm Alert Receiver Setup;
- Station List (Identifying the Capture Stations)

For any Windows and network set-up requirements, refer to:

Remote Configuration: Many configuration tasks can be done by an authorized remote user with only web-browser software (must have access to the internet, or to the capture station through a network--via IP).

Tip: If you prefer to look up capture station configuration topics by screen/location instead of by feature:

- **On-Line Help:** Look for "Screen Reference (Capture Station)" under "Reference Topics" in the topic outline;
- **User's Guide:** Look for "Utility", and "DSR Configuration" in the Index.

13.1 Remote Stations: Basic Set-up

A few items can be configured for remote stations.

Locator: (Logged in at a remote station), Select: The "Utility" button at the bottom of the screen (tools symbol).

Auto Reconnect ☐

These settings pertain to the remote station's behaviour when it is unable to connect (or loses its connection) with a capture station.

- **Reconnect Attempts:** This is the number of times that the remote station will try to reconnect with capture stations.
- **Time Between Attempts:** This determines how long the remote station will wait between connection attempts.

Video Loss Interrupt Property ☐

- **Time Between Attempts (seconds):** If the remote station loses its connection/image from a specific camera, it will continue to try to refresh the connection for as long as it is connected with the specific capture station. This setting determines how long the remote station will wait between camera-refresh attempts.

Select Codec ☐

This selection determines the type of compression and file format for remote video recordings.

- **Mpeg4:** Produces MPEG video recordings (smaller file size, lower quality).
- **Indeo5:** Produces AVI video recordings (better quality, larger file size);
- **Jpeg:** Frame by frame compression (Mjpeg);
- **DivX 3.11:** Produces smaller, high quality AVI recordings.

Note: Mpeg4 and Indeo5 are supported directly. For other file types, the applicable CODEC must have been installed separately.

Status Display ☐

- **Status Display on Online View Window:** This allows setting whether or not connection status information will appear in camera windows (e.g., during connection delays or problems).

Tip: Connection status details also appear in a list near the bottom-right corner of the remote station desktop.

When finished, click the **[X]** in the upper-right corner to close the form.

13.2 Setting Up the Alarm Alert Receiver

Notice: This task pertains only to a remote station that is identified through the alarm alert sender at a capture station.

The alarm alert feature includes a number of configurable options--including having the camera auto-display, and/or having recording start automatically when an alarm alert is received.

Notice: The Alarm Alert feature must also be enabled and set up at the specific capture station(s).
Related Topics: 15.1 Enable/Disable Alarm Alerts or E-Mail; 15.2 Set Up the Alarm Alert Caller

To set up the alarm alert receiver, you must first activate this software module:

Start your remote software, and log in as usual. Then, click the Alarm Alert icon (head/portrait) at the bottom of the screen once.

TechTip: The Alarm Alert Receiver can also be run on its own:

Startup: Run **Alarm Receiver.exe** in the folder for your Netvision software (under C:\Program Files\Digital Surveillance Recorder\...).

Shutdown: Right-click the Alarm Alert Receiver symbol (head/portrait) on the right-hand side of the **Windows** task bar, and select **Exit**.

Locator: Look for the face symbol (alarm alert) near the right-hand end of the Windows task bar, **right**-click it, and select **Setup**.

Refer to the descriptions that follow while working in this screen.

To Exit from this Screen: Click **[Cancel]** at the bottom, or **[X]** in the upper-right corner.
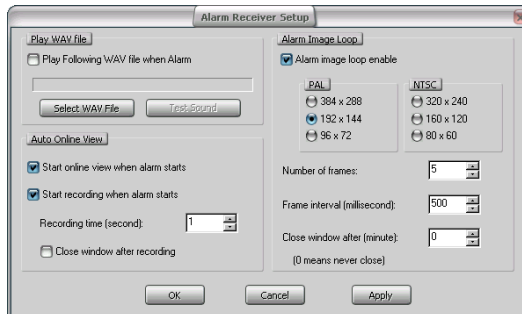
Play WAV file

Play following WAV file when alarm: Select this if you wish to have a sound played each time an alarm alert is received from a capture station;

[Select WAV File]: Click this to allow selecting a sound file (.WAV);

Tip: Sounds can typically be found under "C:\Windows\Media".

[Test Sound]: Click this to hear your selected sound file;

Audio Monitor: If you are also using the audio monitor feature at the same time, the sound selected at the capture station will played at the remote station as well.

Recording Custom Sounds: On a PC equipped with a microphone and sound card (or equivalent), open the Windows **[Start]** menu, select **[Run]**, type "**sndrec32**", and click **[OK]**. Then, refer to the on-line help for the sound recorder (press **F1**, or use the **Help** menu).

Auto Online View

Start online view when alarm starts: This has the associated camera displayed in a separate window automatically whenever an alarm alert is received;

Tip: This uses the small remote module's camera viewer. You will be asked to log in the first time this feature is triggered. Note: When this viewer is closed, you'll be asked if you want to "Clean up all Passwords". Be sure to select "No" if you don't want to have to log in the next time.

Start recording when alarm starts: This has the displayed camera-view recorded automatically whenever an alarm alert is received;

Recording time (seconds): This sets the duration for automatic alarm-alert recordings;

Close window after recording: Select this if you want the camera window to close automatically at the end of the recording time.

Alarm Image Loop

This causes the first 5-10 frames from the associated camera to be included in a separate window whenever an alarm alert is received. Three image sizes are provided for each camera type.

Alarm image loop enable: This enables the "image loop" feature;

Number of frames: This is the number of frames to be displayed (5 - 10);

Frame interval: The duration between frames grabbed at the capture station (500 - 5000 ms; 1000ms=1sec.).

Tip: The frames are also displayed at a similar speed.

Close window after: This allows having the window close automatically after 1 - 9999 minutes (0 = never). The window can also be closed manually before this time expires.

13.3 Station List (Identifying the Capture Stations)

Before you can view cameras remotely, you must identify the associated capture stations to the remote station software.

Locator: (Logged in at a remote station), Select: **[Station List]** near the top-right corner of your screen.

Then, click **[Add]**, and make your selections in the next screen:

Attention: When finished entering information, click **[OK]** (do **NOT** press Enter).
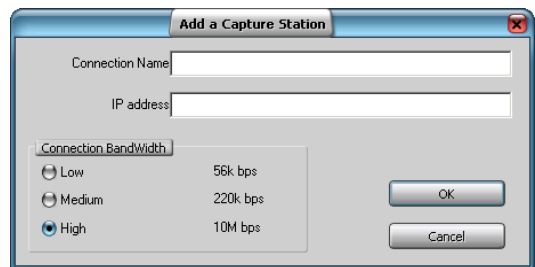
Connection Name: Enter a suitable name for the capture station.

IP Address: Obtain this from someone at the specific capture station (xxx.xxx.xxx.xxx).

Connection Bandwidth: This sets the video quality and frame rate as suitable for your connection speed (i.e., associated with a dial up modem, cable/DSL link, or a network connection).

[OK]: Select this to complete the operation.

[Cancel]: Click this to abort.

Tip: You can change settings later by selecting **[Modify]** in the station-list screen (or delete a capture station via **[Remove]**).

When finished, click **[Exit]** to close the capture station screen.

14 General Capture Station Settings

14.1 Enable/Disable the Minimize Feature

You can select whether or not the capture station desktop can be 'minimized'.

> With this feature selected, you can minimize the capture station software by right-clicking any fixed portion of the desktop (i.e., outside of any buttons or display areas), and selecting "**Minimize**".

> **Locator:** At capture station (will prompt for "Supervisor" login),
> Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Minimize DSR** in the list. When the screen appears, make your desired selection(s).

Allow minimization of the main window:
This enables (or disables) the right-click menu for the NetVision desktop.

When enabled, you will be able to right-click a blank portion of the NetVision desktop to **Minimize** the NetVision program, or view the **Help**.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

> **Attention:** To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

14.2 Startup / Logoff Options

A number of start-up/logoff options are available at capture stations.

> **TechTip:** These settings do **not** affect features to be available at remote surveillance stations.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Option Setting].

Select **Operation Setting** 🗀, and then make your desired selections:

On Next Startup:

- Status Restore: Select this if you want viewing / recording mode selections to be retained for use during the next login.

- Auto Login: Select this if you want to skip having to logon when the capture station software is started (and select to be logged in as "Operator" or "Super").

> **Caution:** This bypasses password protection for the capture station software. Auto-logon as "Super" gives full access for anyone with authority to use the PC (as per Windows 2000/XP permissions).
>
> BIOS and Windows Setup: Capture stations are typically pre-set at the factory to automatically restart after a power failure.

At Logoff: Select the items that you wish to remain in effect at the capture station when the operator logs off (video display, manual recording, PTZ control).

> **TechTip:** If you need to disable remote viewing through a dial-up connection, disconnect or disable the modem.

Allow Operator to Exit: Select this to allow persons logged in as "Operator" to be able to shut down the software. (Otherwise, the **[Exit]** button is available only when logged on as a "Supervisor".)

Date/Time Display: 12-hour (with AM/PM) versus 24-hour time display.

When finished, click **[OK]**, and then **[Close]** the utility menu.

14.3 Enable/Disable Tracking of Changes made through the "Utility" Menu

You can select whether or not changes made through the **[Utility]** button will be tracked in a text file.

> **Locator:** At capture station (will prompt for "Supervisor" login),
> <u>Select</u>: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Optional Features Setup** in the list. When the screen appears, select **Misc.** ☐, and then make your desired selection(s).

Enable Audit Trail Log: This enables (or disables) the logging of changes made through the [Utility] button.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

> **Attention:** To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

<u>Related Topics</u>:
11.6 Viewing Changes Made through the "Utility" Menu

14.4 Setting Video Playback Sessions to be Logged

You can optionally have remote playback sessions logged at each capture station.

> **Locator:** (Capture station running, Windows 'Task Bar' in view).
> <u>Double</u>-click **DSR Playback Server** on the capture station task bar.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

When the screen appears, make your desired selection(s).

Record to Log File: Select this to have user video playback sessions recorded in a log file.

> **Filename and Location:**
> d:\dsr-video\Log\PlaybackServer**yyyymmdd.txt**

When finished, click **[Close].**

<u>Related Topics</u>: 11.7 Viewing Remote User Sessions

15 Alarm / Reporting Settings

External Inputs/Sensors: For details on setting up external sensors, refer to:
18.3 External Sensors and Recording Duration.

15.1 Enable/Disable Alarm Alerts or E-Mail

The alarm alert feature lets a remote surveillance station know any time an alarm occurs (external sensor tripped, video motion sense, and/or video signal lost). This feature operates through an IP connection, and can also alert persons via email (with or without a 'snapshot' of the first frame of the alarm-triggered recording).

TechTip: This feature must also be set up through the Alarm Alert Caller module on the taskbar, and the capture station must be able to communicate with the remote station (via IP). As well, the Alarm Alert feature can be customized as desired at the remote stations (see "Related Topics").

Locator: At capture station (will prompt for "Supervisor" login),
Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration.**

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Optional Features Setup** in the list. When the screen appears, select **Alarm Alert** ▢, and then make your desired selection(s).
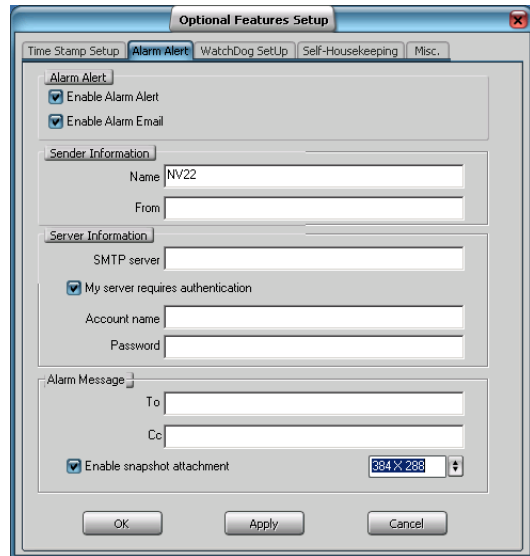
Alarm Alert
Enable Alarm Alert: Select this to activate the alarm alert (and/or Alarm Email) feature.

Enable Alarm Email: This turns the alarm-email feature on (or off).

Sender Information
Name: This shows the name (or IP address) of the Netvision capture station PC;

From: This is the outgoing email address;

Server Information
SMTP Server: This is the name of your outgoing SMTP email server. (Get this from your network administrator or email service provider.)

My server requires authentication: Select this, and enter an **account name** (outgoing email address) and **password** if required for your outgoing email;

Dial-up E-Mail Connection: This is handled through your e-mail settings (nothing else needs to be set in Netvision).

Note: Web-page-based e-mail services are NOT supported at the capture station.

Alarm Message

To and **Cc:** These are the email addresses of the person(s) who are to receive the email alerts from this capture station (e.g., jmartin@mailco.com).

For Multiple "To" or "Cc" Recipients: Use a semicolon (;) or comma (,) between the addresses (with NO spaces).

Enable snapshot attachment: Select this to have a 'snapshot' of the first frame of the alarm-triggered recording included in the e-mail. To set the size of the snapshot, click the [▼].

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

Testing Your Settings: To send a sample email, right-click the **Alarm Email Sender** on the Windows Taskbar, and select **Test**.

15.2 Set Up the Alarm Alert Caller

The alarm alert feature lets a remote surveillance station know any time an alarm occurs (external sensor tripped, video motion sense, and/or video signal lost).

This feature can be set regarding:

- The type of connection;
- The type of events to trigger alarm alerts;
- An optional sound (WAV file) to include.

TechTip: The "Alarm Alert" feature must also be enabled, and the capture station must be able to communicate with the remote station (via IP). (see "Related Topics").

Locator: (Capture station running, Windows 'Task Bar' in view).
Right-click **Alarm Alert Caller** on the taskbar, and select **Setup**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

When the screen appears, make your desired selection(s).
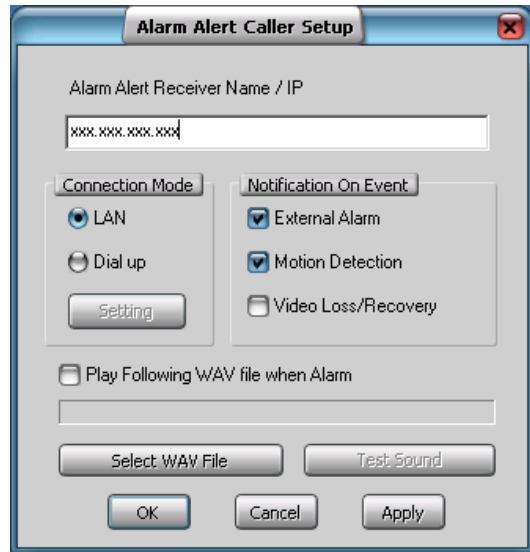
Alarm Alert Receiver Name / IP: This is the name or IP address of the remote station PC which is to receive the alarm alerts.

To obtain the Remote station's IP address: Have someone go to THAT computer, open a DOS / Command window, type **ipconfig**, and press **Enter**. (To close the window, type **exit**, and press **Enter**). **Note:** For this feature, the remote station must have a fixed/static IP address.

Connection Mode: Select **LAN** if the capture station and remote station are on the same network (LAN/WAN), or to have "alarm alerts" sent through a permanent internet connection. Select **Dial-up** if the capture station will have to initiate a dial-up networking connection.

[Setting]: This appears only if you selected a "dial-up" connection mode. In the next screen, select your dial-up connection that was set up previously. (see "Related Topics").

Notification on Event: Select the type of alarm-alerts to be sent to the remote station (external alarm / sensor, video motion detection, and/or video lost/recovery).

Play Following WAV File when Alarm: This sets a custom sound to play at the capture station each time an alarm-alert is sent. Click **[Select WAV File]**, locate and select the file (typically under C:\Windows\Media), and click **[OK]**. To listen to your selection, click **[Test Sound]**.

Remote Audio**:** If the remote station is also monitoring audio from this capture station, the sound (WAV file) selected above will play at the remote station as well.
Related Topics: 16.9 Remote Audio Monitoring

Recording Custom Sounds: On a PC equipped with a microphone and sound card (or equivalent), open the Windows **[Start]** menu, select **[Run]**, type "**sndrec32**", and click **[OK]**. Then, refer to the on-line help for the sound recorder (press **F1**, or use the **Help** menu).

When finished, click **[OK]**.

Related Topics:
15.1 Enable/Disable Alarm Alerts or E-Mail;
13.2 Setting up the Alarm Alert Receiver
    (Remote Station);
21 Network and Connectivity Issues
6.2 Responding to Alarm Alerts (Remote Station)
18 Scheduled and/or Alarm-Triggered Recording

16 Camera, Audio, and PTZ Settings

16.1 Set up Cameras and Titles

You can set the name to be associated with each camera. Cameras that are physically connected to a capture station also need to be activated, and all other camera numbers **MUST** be de-activated.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: **[Utility]**, then **[Camera Setting]**.

When the screen appears, make your desired selection(s).

16.1.1 (List of Cameras)

Cam ID: This is each camera number/ID pertaining to the physical connections to the capture station (see "Related Topics").

Camera Title: Enter a suitable description for the camera location/view.

Active: Select this (**only**) for each camera that is connected to your capture station.

> **Tip:** Be sure to de-select **all** cameras that are not present.

16.1.2 [Video Control]

This allows controlling the brightness, and colour balance for each camera to adjust for different lighting conditions, etc. The selections include **Camera**, **Brightness**, **Contrast**, **Saturation U**, **Saturation V**, and **Hue**.

[Default]: This returns to the default colour parameters for the selected camera.

16.1.3 [Subtitle Setter]
(Custom Titles for Cameras)

Each camera can have up to 3 custom titles associated with it. These titles can be positioned anywhere in the camera-view, and are visible at the capture station and remote stations.
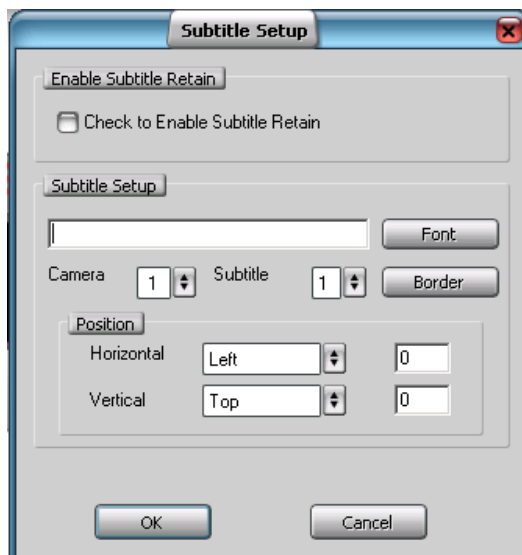
Enable Subtitle Retain
Check to Enable Subtitle Retain: Select this to have the titles retained whenever the NetVision software (and/or capture station) is restarted.

Subtitle Setup
1st Field (Title Text): Select a camera and subtitle number, and then enter the text for your camera title here;

[Font]: This allows selecting different styles of letters;

[Border]: This allows selecting a border for the title if desired;

Camera: Select the camera number here (1 - 16).

Subtitle: Select the subtitle number for the selected camera (1 - 3):

Position: This allows setting where the title will appear on the camera-image:

Horizontal: This allows setting the left-to-right starting position for the title.

Vertical: This allows setting the top-to-bottom position for the title.

Tip: For an absolute position, select **Custom** for the vertical and/or horizontal, and then enter a specific value in the area(s) provided (in pixels, relative to your screen resolution).

When finished, click **[OK]** as needed, and then **[Close]** the utility menu.

> **PTZ Cameras:** These must also be set up through "DSR Configuration" (in the Windows Control Panel). (see "Related Topics").

Related Topics:
25.2   Camera and PTZ Reference
16.3   Pan/Tilt/Zoom Activation and Set Up
16.4   Show Date and Time in Video Image
          (Time Stamp)
7.7   Window Options and File Properties
          (Old/Quad Playback)

16.2   Cameras to Appear in Sequential Viewing

You can select the cameras for sequential viewing, and set the duration that cameras will be displayed.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Option Setting].

Select **Sequence Setting** ▭, and then make your desired selections:

Dwell Time: The duration that each camera will be displayed during sequential viewing.

Sequencing (Cam ID): Select the cameras to be included for sequential viewing.

When finished, click **[OK]**, and then **[Close]** the utility menu.

Related Topics:
25.2   Camera and PTZ Reference
16.1   Set up Cameras and Titles

16.3 Pan/Tilt/Zoom Activation and Set Up

Cameras with pan/tilt/zoom (PTZ) control are fully supported. This feature must be enabled and properly set up.

> **TechTips:** Beginning with V2.2, eight different PTZ protocols are supported through COM ports 1 - 8 (different protocol for each port).

> **Locator:** At capture station (will prompt for "Supervisor" login),
> Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **PTZ Configuration**. When the screen appears, make your desired selection(s):
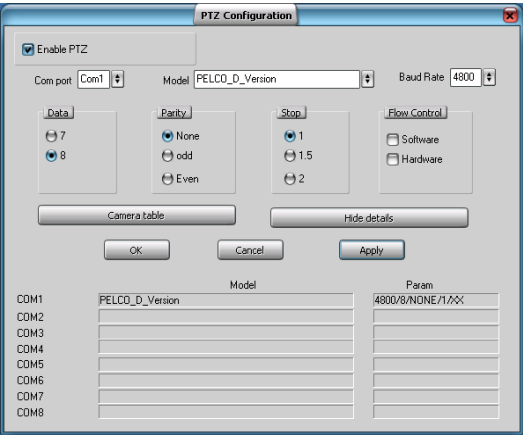
Steps: • Click **[Show Details]**; • Select a port; • Set the model and communications parameters; • Click **[Apply]**.

Tip: After **[Apply]-**ing settings for all needed ports, click **[Camera Table]** to set the camera/port assignments.

Enable PTZ: Select this (✓) to allow pan/tilt/zoom control for cameras that support this feature.

Com Port: Select the serial (COM) port on the capture station being used for PTZ camera control.

Model: Select your desired PTZ protocol here (must be different protocol for each port used).

Baud Rate, Data, **Parity**, **Stop**, and **Flow Control:** These are serial communications parameters that **MUST** be set to match the requirements of the PTZ camera (refer to the camera documentation, and/or:
Look Here: 25.2.4 PTZ Model Reference).

[Show / Hide Details]: Opens the bottom portion of the screen showing the settings that have been applied for each port.

[Camera Table]: This opens a screen that allows setting the COM port associated with each PTZ camera, and identifying cameras within the PTZ sequence. (When finished, click **[OK]**.)
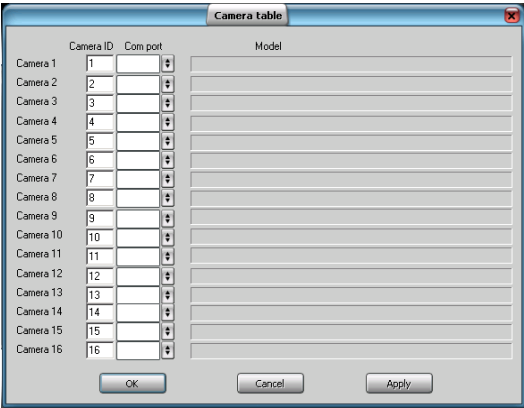
Camera ID: This pertains to the camera's OSRD / receiver-driver ID setting in the hardware (where applicable), or it's PTZ sequence number for the specific port (xth camera).

Port: For each PTZ camera, select the associated COM port here; <u>PTZ Cameras Connected in parallel</u>: In this case, the COM port will be the same. Individual camera control is provided through an OSRD / receiver-driver ID setting for each camera, or through a supported 'cascade' protocol (such as Canon VC-C4).

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

Note: Also ensure all cameras that are present (only) are enabled under **[Utility]** ⇨ **[Camera Setting]**. (Requires "Supervisor" login.)

16.4 Show Date and Time in Video Image (Time Stamp)

You can select whether or not individual camera images will include a date and time display.

> **Locator:** At capture station (will prompt for "Supervisor" login),
> <u>Select</u>: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Optional Features Setup** in the list. When the screen appears, click **Time Stamp Setup** 🗀, and then make your desired selection(s).

Time Stamp for Camera
(✓) For each camera image to include the date and time.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Especially for the capture station, it is important to ensure that the date and time are always correct--since this information is used to manage video recordings. There is normally no reason for this to vary, but it's still best to check it on a regular basis.

Tips: The time is displayed on the right-hand end of the Windows task bar. To view the date, 'hover' the mouse pointer over the time. For details on setting the date or time, open the Windows on-line help (e.g., from the Windows Control Panel), and search for "Date".

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

16.7 Enable Audio for One Camera

Audio recording and playback is supported for one camera. This requires a microphone, and uses the sound card (or equivalent) that is built into the capture station. To use this option, you'll need to indicate which camera is associated with the sound card.

> Audio Recording: Audio is not recorded as a separate file. Instead, it is included in any local or remotely recorded AVI (or MPEG) files for the specific camera.
>
> Legal Notice: The recording of live audio is subject to local bylaws. Be sure to find out if audio recording is restricted in your area before proceeding.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Option Setting].

Select **Audio Setting** ▭, and then make your desired selections:

Camera 1-16: Select "Sound Card" for the camera that is associated with a microphone that is connected to the capture station.

When finished, click **[OK]**, and then **[Close]** the utility menu.

> **Tip:** For good audio recording and playback, you may need to adjust the audio levels.

Related Topics:
16.8 Setting the Sound Level
16.9 Remote Audio Monitoring

16.8 Setting the Sound Level

Audio recording and playback is supported for one camera. This requires a microphone, and uses the sound card (or equivalent) that is built into the capture station.

For good quality audio recording and playback, you may need to adjust the audio levels. This is done using the Windows recording volume control.

> **Locator:** To access the Windows recording and playback volume controls, select: Windows **[Start]** menu, **Settings**, **Control Panel**, **Multimedia** (or **[Start]**, **Run**, "**sndvol32**", **[OK]**).

Note: If you cannot access the Windows "Start" menu, press "Ctrl-Esc" (or your "Windows" key).

Use the Windows recording volume control to adjust the audio levels as desired.

This should be done with a range of loud and soft sounds in the area (to ensure soft sounds are being heard, and loud sounds are not distorting).

When finished, close the recorder/multimedia screens as necessary.

> **Tip:** You must also indicate which camera is associated with audio (see "Related Topics").

Related Topics:
16.7 Enable Audio for One Camera
16.9 Remote Audio Monitoring

16.9   Remote Audio Monitoring

One camera at each capture station can have a microphone associated with it (to have sound included with the camera image), and/or allow sounds to be monitored in an area. These sounds can also be monitored at authorized remote stations.

Multimedia Settings: Listening to audio through a microphone is subject to Windows multimedia settings for recording and playback (mute, volume, etc.). Remote Stations must be equipped with a sound card (or equivalent) and speakers. (A sound card is already built into capture stations.)

Audio Recording: Audio is not recorded as a separate file. Instead, it is included in any local or remotely recorded AVI (or MPEG) files for the specific camera.

Legal Notice: The recording of live audio is subject to local bylaws. Be sure to find out if audio recording is restricted in your area before proceeding.

16.9.1   Network / Connection Set Up

The remote station must be able to communicate with the capture station (via its IP address).

Related Topics: 21 Network and Connectivity Issues

16.9.2   Microphone and Speakers

Connect the microphone and speakers to the appropriate/correct jacks on the back of the capture station. If you need a second microphone, use a suitable adapter.)

Push Button: The microphone can have a direct/permanent connection, or it can be controlled through a push-button or switch (e.g., for a one-way A/V intercom application).

16.9.3   Capture Station Set Up

1) Enable audio for the specific camera.

Related Topics:
16.7 Enable Audio for One Camera

2) Adjust the sound level at the capture station if required.

Related Topics: 16.8 Setting the Sound Level

3) Set up permissions to determine who can access the audio server.

Related Topics:
11.2 Remote Users and Permissions
(includes PTZ priority +HTTP Server Port)

4) Since all sounds handled by the capture station's sound card will be heard at the remote stations, it is best to turn **off** the sounds associated with MS Windows (at the capture station).

Details: Go to the Windows **Control Panel**, and run "**Sounds and Multimedia**". Then, click the [▼] next to "Schemes", select "No Sounds", and click **[OK]**.

(⇨)

16.9.4 Remote Station: Initiate an Audio Monitoring Session

To begin monitoring audio from a capture station, you need to activate the 'Audio Client', and log-on to the desired capture station.

> Tip: Multiple audio sessions can be set up if you will be monitoring more than one capture station.
>
> Note: This feature is NOT supported through the small remote module software.

Alarm Alerts: If using the alarm-alert feature at the same time, a WAV file selected at the capture station will play at the remote station when the alarm-alert is received (in addition to a WAV file selected at the remote station (if applicable). Related Topics: 15.1 Enable/Disable Alarm Alerts or E-Mail

----

A) Start the NetVision Remote Station software, and log in (with a username and password that is registered at the server). Then, click the 'Audio Client' symbol (near the bottom-right).

> If nothing seems to happen: Minimize the remote station desktop to ensure the audio monitor is not 'behind' it.

B) When the screen appears, enter (or select) the IP address of the desired capture station, and click **[Logon]**.
Tip: Watch for the "Audio Source" box to change to white, and [Logon] to change to [Logoff].

> Note: If nothing seems to happen (or you get an error), ensure the capture station is on-line, re-check your network/connection, and then try again.

Related Topics:
21 Network and Connectivity Issues

C) Under Audio Source, select **Sound Card**, and click **[Start]**.
Tip: Watch for a short green bar to appear at the bottom.

D) Adjust the sound level on your PC if required.

Related Topics: 16.8 Setting the Sound Level

> Note: If you are unable to detect any sounds:
> - Ensure there is sound in the area of the microphone;
> - Check to ensure the sounds can be heard at the capture station (microphone and speakers must be plugged in);
> - Re-check the set-up details throughout this topic.

E) Use the **[Stop]** button if you wish to stop monitoring the sound briefly. When you're ready to end the monitoring session, click **[Logoff]**, and/or click the **[X]** (top right) to close the screen.

17 Recording and Playback Settings

17.1 Video Setup (in DSR Configuration)

Some settings are provided to improve video quality in certain situations (jumpy camera images, or fast motion all full resolution).

> **Locator:** At capture station (will prompt for "Supervisor" login),
> Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press Ctrl-Esc (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Video Setup** in the list. When the screen appears, make your desired selection(s).

Single Field
Single Field Full Resolution: Select this to prevent distortion of fast moving objects in "Super Resolution" recordings.

Video Sync Adjust
Number of Frames to Wait for Synchronization: This is the number of frames to be used for video synchronization (1-15 frames; Default: 2). This setting can help to correct 'jumpy' camera images.

Note: Since increasing this value will reduce the maximum possible frame rate in recordings, it is best to try to find the smallest increase that provides the desired image quality.

Video Quality - PCI Traffic Control
32-bit PCI Slot: Ensure this is selected.

64-bit PCI Slot: Future use.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

17.2 Recording Setup
(in DSR Configuration)

A number of settings pertaining to video recording are provided under "Recording Setup".

> **Locator:** At capture station (will prompt for "Supervisor" login),
> Select: (Windows task bar) Start, Settings, Control Panel, **DSR Configuration**.

Tips: If you cannot access the Windows task bar, press Ctrl-Esc (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Recording Setup** in the list. When the screen appears, make your desired selection(s).

17.2.1 Drive Usage 🗀

You can select the hard drive(s) to be used for recording, allowing the system to use a different drive if one becomes full. Local drives and 'mapped' network drives are both supported.

Tip: Since MS Windows uses the **C:**/ drive for virtual memory, it is best to **NOT** use this drive. As well, larger drives are better (at least **40** GB is recommended).

To 'Map' a Network Drive to be Available at a Capture Station: For details on this, open the Windows on-line help (e.g., from Windows Explorer), search for "Map Network Drive", and look for a suitable topic in the list.
Note: Recording to a mapped network drive is subject to network speed and loading.

Drive Type: Select if you will be using "**Local**" drives (i.e., in the capture station PC), and/or "**Remote**" drives (mapped network drives).

Select Drive to Record: Select the drive(s) to use for storing recorded videos.

Space Utilization Control: The values shown here determine when a hard-drive is considered too full to continue recording (these are set automatically). Related Topic: 17.3 Resolution and **Recording Mode**

17.2.2 File 🗀

This provides selections pertaining to video files.

Set Recording File Length
Max Length for each Recording File (min.): This sets the maximum recording duration (3 - 15 minutes).

Tip: Smaller files are easier to play and download through a slower connection.

Allow Alarm Files Overwrite
Allow Alarm Files Overwrite in Circular Mode: This sets whether or not alarm-triggered recordings will be overwritten by "circular" recording mode if the hard drive for recording is nearly full.

Tip: Additional local and network drives can be selected. (see the 'Drive Usage' tab, previous).

17.2.3 Codec 🗀

This selection determines the type of compression and file format for video recordings.

Notice: Leave this at the default value unless you are sure you require a different type of recording files.

- **Indeo5.1 (IV50):** Produces AVI video recordings (high quality, larger file size);
- **Mpeg4.2 (MP42):** Produces MPEG video recordings (smaller file size, lower quality).
- **Mjpeg3 (MJPG):** Frame by frame compression;
- **DivX 3.1 (DIV3):** Produces smaller, high quality AVI recordings.

Notes: Mpeg4.2 and Indeo5.1 are supported directly. For other file types, the applicable CODEC must have been obtained and installed separately.
Indeo5.1 is generally recommended for surveillance video.

17.2.4 Priority ☐

This allows setting the priority for different types of recordings (to determine whether another type of recording will be available for a camera that presently has one type of recording already started). In general, recording-types that are higher in the list will override all types of recordings below them in the list.

Notes: **The default settings are generally recommended.** Moving "Instant Recording" above "Pre-Alarm Recording" will allow manual recording on cameras that are set for pre-alarm recording (although pre-alarm recording will be interrupted until you stop the manual/instant recording).

Select a desired type of recording, and then use the [Up] or [Down] button to change its position. Select [Default] to return to the factory settings (the order as shown here):

Alarm Recording: A recording triggered by:
• Motion being detected in a camera-view;
• The external sensor associated with a camera being 'tripped'; • Video signal being lost;

Pre-Alarm Recording: An on-going short recording that allows a recording of the scene to be available just before an alarm-triggered recording occurred;

Instant Recording: This is a recording started manually by someone who is logged in at a capture station or remote station;

Scheduled Recording: This is a recording started automatically based on a schedule.

Related Topics: To follow/below.

17.2.5 Misc. ☐

You allows setting some miscellaneous features.

Enable Instant Recording Hot-Key: This determines whether or not recording can be started by double-clicking a camera/view during sequential viewing.

Alternative: You can also start a manual/instant recording by selecting the camera "ID" number under "Recording" (on the right-hand side of the capture station desktop).

Enable Instant Playback: This determines whether or not a manual/instant or scheduled recording can be interrupted for immediate playback.

Note: Playing a file while it is being recorded closes the present file (to allow it to be played-back), and starts a new recording file. Alarm recordings cannot be interrupted in this way.

17.3 Resolution and Recording Mode

You can select the quality for recordings, and decide what the system will do when the hard drive starts to get full.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Option Setting].

Select **Recording** ▢, and then make your desired selections:

Resolution: Super, High, or Low

Format	Super	High	Low
NTSC	640x480	320x240	160x120
PAL	640x480	384x288	192x144

Tip: "High" is the recommended setting, since it provides good system performance and hard drive usage, with reasonable image quality. "Super" can be reduced to 640x240 to better handle especially fast moving objects (see "Related Topics").

Recording Mode: This determines what the system will do when the hard drive is getting full--if no other drives have been selected.
Related Topic:
17.2 Recording Setup (in DSR Configuration)

With **Linear** recording mode, recording will be disabled when the free space equals the "Reserved Space" value (if no other drives have been selected for recording). With **Circular** recording, the oldest files will be deleted until the free space equals the "File Retention Limit", thus allowing recording to continue.

> **TechTip:** To block alarm-triggered recordings from being deleted, go to "DSR Configuration ⇨Recording Setup ⇨File▢", and ensure **Allow Alarm Files Overwrite** is NOT enabled.

When finished, click **[OK]**, and then **[Close]** the utility menu.

Related Topics:
17.1 Video Setup (for fast motion and 'sync adjust')
17.2 Recording Setup (in DSR Configuration)

17.4 Frame Rate for Recording

You can set the recording "frame rate" for the various types of recordings for each individual camera. Slower frame rates provide smaller recording files, and much-improved viewing and downloading through a dial-up connection, but provide fewer 'snapshots' per second.

TechTip: Eight frames/sec. or higher is recommended for instant/manual recording and alarm (sensor/motion) triggered recording. To save drive space with scheduled recording, select four frames/sec. or lower.   The effective/actual frame-rate may be reduced during multi-camera recording.

Locator: (Logged in at the capture station as a "Supervisor"),
Select: [Utility], then [Recorder Setting].

Select **Frame Rate** ☐, and then make your desired selections:

Instant: This is the frame rate for instant/manual recording for each specific camera.

Alarm: This is the frame rate for motion/sensor triggered recording for each specific camera.

Schedule: This is the frame rate for scheduled recording for each specific camera.

When finished, click **[OK]**, and then **[Close]** the utility menu.

18 Scheduled and/or Alarm-Triggered Recording

18.1 Introduction to Automated Recording

In addition to starting recordings manually, you can set the system to record during a recurring schedule, and/or record only when motion is detected during desired times (such as after hours). Motion/alarm detection can be via external sensors, and/or via video motion-sensing (configurable including trigger zones).

> **TechTip:** If scheduled and monitoring times overlap, the system will switch to 'alarm' recording when motion is detected. **Exceptions:** Scheduled (and manual / instant) recording are not available while pre-alarm recording is in effect on a specific camera (i.e., during the scheduled alarm/monitoring times). Beginning with v2.2, you can change the recording priority if desired. <u>Related Topics</u>: "Priority" tab under: 17.2 Recording Setup (in DSR Configuration)

18.2 Schedules for Recording and/or Motion Detection

18.2.1 Introduction to Schedules

Schedules determine when camera recording will occur automatically, and/or when motion detection can trigger automatic recording. Different schedules can be set up for holidays, and different days of the week as desired.

> **Tip:** Your present schedule is identified in the title-bar at the top. (This is set during a **[Save As]** operation.)

> **Schedule Priorities:** Only one schedule can be in effect at a given time. With more than one schedule, the one to take precedence is selected in this order: **1)** For a specific date; **2)** For a specific Weekday; **3)** Every weekday / weekend; **4)** Every day. This allows setting schedules for everyday or every weekday, with higher priority schedules acting as 'exceptions' (such as for holidays).

18.2.2 Colour Scheme

The middle of the screen shows recording and alarm monitoring times for each camera using the following colour scheme:

- **Green**: Times for continuous recording during the schedule;
- **Red**: Times to record only if an external sensor is tripped, or if motion is detected in a camera's view;
- **Brown**: Times not selected in the schedule.

18.2.3 Working with Schedules

You can create new schedules from scratch, or use an existing schedule as a starting point for a new one.

There are two methods for setting up schedules for each camera:

- Visually (using your mouse), **and/or**;
- By typing desired time-ranges, and assigning (Adding) them as recording and/or alarm monitoring periods for the desired cameras.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> <u>Select</u>: [Utility], then [Recorder Setting].
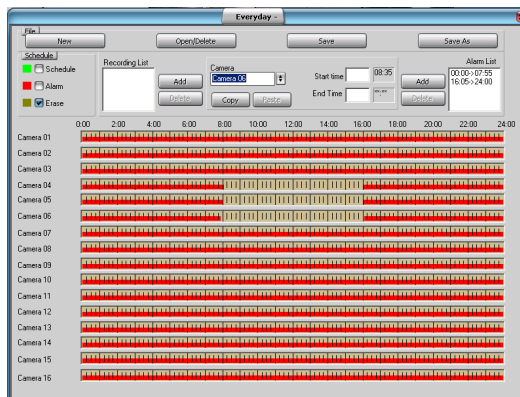
Select **Schedule Planner** ☐. Then, use one of the following approaches:

Getting Started: Start by using the buttons across the top to select your desired action. "Open/Delete" allows you to select a desired schedule (by its assigned date or weekdays), and provides **[Open]** and **[Delete]** buttons at the bottom.

Attention: Before creating a **New** schedule (plan), be sure to **Save** your present schedule if you have made any changes you wish to keep.

Default Values: The default for a new schedule is 24-hr alarm monitoring, and no scheduled recording. If a schedule is presently in effect, this one will appear on-screen as a starting point.

Setting Recording/Monitoring Times Visually: To select a desired time-range for recording and/or alarm monitoring, select **[Recording]** and/or **[Alarm]** near the upper-right corner of the screen. Then, carefully click-and-drag within the row for a specific camera. (Rem: Green = Record; Red = If motion detected). Then, repeat for additional time-blocks as desired. **Tip:** You can use **[Erase]** in the same way to clear specific time-ranges.

When finished: Save / Save As (see details to follow).

Setting Times using the Keyboard: Select a camera near the top of the screen, and enter start and end times for an individual block of time. Then, use the **[Add]** button(s) to assign the time-block for recording (on the left), and/or alarm monitoring (on the right). Repeat for additional time-blocks as desired.

Tip: Enter times in 24-hr format (enter 2 digits for the hours, and the colon will appear automatically).

When finished: Save / Save As (see details to follow).

Copying Times from one Camera to Another: Select the camera with the desired times (near the top of the screen, or by clicking within its row), and click **[Copy]**. Then, select the 'target' camera, and click **[Paste]**.

Saving your Schedule and Setting the Applicable Date or Weekdays: Select **[Save As]** near the top-right corner of the screen. In the next screen, select your desired date or weekdays, and click **[OK]**.

Tips: For a holiday schedule (special date), you can click the down-arrow to access a pop-up calendar.

To save the present (last opened) schedule without changing the effective day(s), select **Save** (instead of **Save As**).

Schedules do not include a name (they are saved and retrieved based only on the date/weekday selection).

When finished, click the **[x]** to close the Schedule-Planner (upper-right corner), and then **[Close]** the utility menu.

18.3 External Sensors and Recording Duration

Each camera can have an external sensor associated with it, allowing recording to occur whenever the sensor is tripped (24/7, or only during specific times).

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Recorder Setting].

Select **Alarm** ▭, and then make your desired selections for each camera:

(External Alarm Input)

Enable: Select this to enable recording when the camera's associated sensor/input is triggered.

TechTip: This must also be selected if you are setting up 'pre-alarm recording' associated with video motion detection.

(in sec): How long each camera will record when its external sensor is tripped.

NOpen: Select this if the sensor is normally open, and closed when tripped (vs. the other way around).

(Pre-Alarm Recording)

This feature is covered separately, since it affects external sensor-activated recording, as well as video-motion triggered recording (browse / next topic).

When finished, click **[OK]**, and then **[Close]** the utility menu.

18.4 Setting up Pre-Alarm Recording

The NetVision system can make continuous short recordings (1 - 60 sec.) during scheduled alarm-monitoring times, with only the two most recent being retained at any time (for each camera). When an alarm is triggered, this provides a recording of the scene just before the alarm occurred without using up a lot of hard drive space. This pertains to recording that is triggered by external sensors/inputs, or video motion detection.

TechTip: Scheduled (and manual / instant) recording are not available while pre-alarm recording is in effect on a specific camera (i.e., during the scheduled alarm/monitoring times).

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: [Utility], then [Recorder Setting].

Select **Alarm** ▭, and then make your desired selections for each camera:

(External Alarm Input)

To support pre-alarm recording, the external input must be enabled for the specific camera (even if you're using this only with video motion detection).

External Sensor Triggered Recording: This feature is covered separately. (browse / previous topic).

(Pre-Alarm Recording)

Enable: Select this if pre-alarm recording is to apply to this camera.

(in sec): The duration for pre-alarm recordings (1 - 60 sec.).

When finished, click **[OK]**, and then **[Close]** the utility menu.

18.5 Setting up Video Motion-Detection

The NetVision system can detect motion within video frames, and record automatically when motion is detected during scheduled times (default: 'always'). Video motion detection is fully customizable for each camera including the detection zone(s) within the camera view, sensitivity, and recording duration.

The Pre-Recording Feature: This provides an additional recording of just before the motion was detected.

Related Topics: 18.4 Setting up Pre-Alarm Recording

> **Locator:** (Logged in as a "Supervisor" at capture station), and **right-click** the specific camera/view.

Be sure to set the display mode (e.g., 1-camera), select the specific camera, and adjust its view if applicable (pan/tilt/zoom).

Related Topics:
8.3 Changing a Camera's View (Pan/Tilt/Zoom);
16.3 Pan/Tilt/Zoom Activation and Set Up

Now, **right**-click the camera/view, and make your desired selections:

> **Tip:** A 'grid' will appear over the camera view, and a panel of selections will appear on the right.

(In the Camera Window)

Setting Detection Zones: Click the desired areas of the frame that are to be monitored for motion;

> **Note:** "Detection Area Setup" must be selected on the right. This comes up by default, although you'll have to reselect it if you've been using the 'sensitivity' selections (to follow).

> **Tip:** You can also select or clear all portions of the screen via selections in the form on the right (details to follow).

(Motion Detection Settings form)

Camera: This reminds you which camera you are working with (shows the name and ID number);

Enable or Disable Motion Detection: Select "Motion Detection Enable" to enable video motion-triggered recording for this camera.

> **Tip:** You can temporarily disable motion detection for a camera by deselecting this value. (All other selections will be retained.)

Detection Area: These selections allow you to start selecting detection areas, select or clear all detection areas in the camera view, and select whether or not the outline of detection areas will be shown on-screen when this camera is viewed.

Sensitivity Setup: To set the detection sensitivity, arrange for some suitable movement to appear in the detection area, select "Sensitivity Setup", and watch the screen for motion-indications (shown throughout the camera view unless you select "Show within det. area"). Adjust the sensitivity value up or down to obtain your desired detection threshold.

> **Tip:** To reduce false alarms, try reducing the sensitivity (and retest for motion detection).

Detection Interval (x100 ms): This sets how often the camera-view will be checked for motion (i.e., every xx tenths of a second).

Post Motion Rec (sec): This sets the duration for each motion-triggered recording (1 - 30 sec.), starting from the **initial** detection of motion.

When finished, **[Close]** the detection-settings form.

Software Installation and Network Set Up

19 PC Requirements

19.1 Capture Station PC Reference

19.1.1 PC, Memory, Operating System

A suitable PC is included with each capture station (rack mount, with lockable tamper-resistant case). Should the need arise, the memory and/or hard drives (video storage) can be upgraded using suitable components.

> **Memory Type:** The memory type will depend on when the capture station was purchased. Have a technician verify the memory type before purchasing any additional memory.
>
> Note: Installing or upgrading the NetVision software must be done by someone with NT administrator authority (i.e., logged in as administrator).
>
> **Service Packs and Critical Updates:** As a general rule, be sure to install new Windows 'service packs' and critical updates for your Windows operating system as they become available.
>
> To view your Windows version and service pack details, open Windows Explorer or the Control Panel, open the Help menu, and select "About Windows".
>
> For details on the latest Windows updates available, and how to download and/or install them, visit http://support.microsoft.com (NOT "www").

19.1.2 Additional Hard Drives

If additional hard-drives are desired for recording and storing video files, 40 **G**b or larger is recommended. These can be installed locally, or shared from another PC on the network.

19.1.3 Microphone and Speakers

One camera can have a microphone associated with it. Sound can be monitored at the capture station, and at authorized remote stations. A microphone and PC speakers are required for this feature.

19.1.4 Items Typically Done at the Factory

1) Install the Windows operating system (including Internet Explorer).

2) For Windows 2000: Install Service Pack 2 (SP2), (and Windows media Player v7.x).

3) Install the NetVision software.

4) Set up NetVision default features:

   In **Control Panel ⇨ DSR Configuration**:

   - Minimize DSR ⇨"Allow Minimization of the Main Window" (✓)
   - Recording Setup ⇨File◻ ⇨"Allow Alarm Files Overwrite" (✓)
   - Recording Setup ⇨Misc.◻ ⇨"Enable Instant Recording Hot Key" (✓)
   - Recording Setup ⇨Misc.◻ ⇨"Enable Instant Playback" (✓)
   - Optional Features Setup ⇨Time Stamp Setup◻ ⇨"Time Stamp for Camera" (✓)

   In **[Utility] ⇨ [Option Setting] ⇨ Operation Setting**:

   - On Next Startup:
     + Status Restore (✓)
     + Auto-Login (✓); As "Super"
   - Date/Time Display: 24 hr

5) Set up the BIOS and Windows to auto-start on power restoral (including automatic login), and place a shortcut to the NetVision software in the Windows "Startup" folder.

19.2 Remote Station PC Requirements

19.2.1 Processor (CPU)

Remote station software can be run on a typical, currently available PC (a motherboard with Intel™ chip-set is preferred). For general use, a good choice would be a PIII/877MHz or faster.

19.2.2 Memory (RAM)

128 Mb or more.

TechTip: As with all Windows programs, additional memory can improve performance. The type of memory will depend on the PC's age and model. To upgrade your memory, be sure to first verify the memory type.

19.2.3 Operating System

Windows 2000 or XP is required, and MS Internet Explorer 5.0 or newer must be installed. (This is typically included on the CD with MS Windows.)

Note: Windows Media Player v**7.1** or newer is recommended (separately, **or** upgrade to MS Internet Explorer 6.0).

Tip: Other versions of Windows are not supported or recommended.

Note: Installing or upgrading the NetVision software must be done by someone with NT administrator authority (i.e., logged in as administrator).

Service Packs and Critical Updates: As a general rule, be sure to install new Windows 'service packs' and critical updates for your Windows operating system as they become available. Known requirements: Windows 2000 must have **SP2** installed.

To view your Windows version and service pack details, open Windows Explorer or the Control Panel, open the Help menu, and select "About Windows".

For details on the latest Windows updates available, and how to download and/or install them, visit http://support.microsoft.com (notice: NOT "www").

19.2.4 Video Card and Monitor

Required: A good quality video card and monitor supporting SVGA resolution (800x600) or higher.

Exception: XGA (1024x768) is recommended for viewing capture stations with PAL cameras. (And this resolution is required at the capture stations themselves.)

19.2.5 Hard Drive (Remote Stations)

A local drive of at least **40** Gb is recommended if you will be doing any video recording. This must be the primary local drive (**C:**).

TechTip: The remote software itself requires very little hard drive space (3 Mb or so). This is in addition to space used by the Windows 'virtual memory' feature (swap file).

19.2.6 Other Drive(s)

Any drive supporting standard data CDs (CD-ROM, CD-R / CD-RW, or DVD drive).

19.2.7 Sound Card and Speakers

Audio from capture stations can be monitored at authorized remote stations. A sound card (or equivalent) and PC speakers are required for this feature.

20 Software Installation or Upgrade

20.1 Installing or Upgrading the Remote Station Software

Note: Installing or upgrading the NetVision software must be done by someone with NT administrator authority (i.e., logged in as administrator).

Before you Begin: Refer to the PC requirements section to determine if your computer will provide adequate performance.

Related Topics:
19.2 Remote Station PC Requirements

1) If upgrading from an existing version of the NetVision software:

Note: This is a general reference only. For more information, look for a 'readme' and/or other PDF file(s) in the "Documents" folder on your NetVision CD.

a) Make backup copies of any alarm/video files that you wish to keep (under C:\DSR-video).

b) Ensure the existing NetVision software is shut down, and then remove it (Control Panel ⇨ "Add/Remove Programs").

2) Insert the NetVision™ CD and wait briefly for the installation program to start. (If it doesn't start automatically, eject and reinsert the CD.)

3) Follow any prompts that appear.
Tip: Say Yes if asked to delete existing alarm/video files.

4) Select the type of software to install:
Remote Station: The full-featured multi-camera remote viewer. Intelligent Remote Module: A small, single camera viewer.
xx Camera NetVision Server: These selections pertain to capture stations only.

5) Follow any additional prompts that appear. Tip: Say Yes if asked to delete existing alarm/video files.

6) When finished, put the CD in a safe place.

Related Topics:
19.2 Remote Station PC Requirements
21 Network and Connectivity Issues

20.2 Reinstalling or Upgrading the Capture Station Software

> Note: Installing or upgrading the NetVision software must be done by someone with NT administrator authority (i.e., logged in as administrator).
>
> Screen Resolution: Capture stations using Pal cameras must be set for 1024 x 768 resolution. Systems using NTSC cameras require a screen resolution of 800 x 600. Higher resolutions will work as well, but are generally not recommended.

Steps:

Notes: This is a general reference only. For more information, look for a 'readme' and/or other PDF file(s) in the "Documents" folder on your NetVision CD. As well, beginning with NetVision **v2.2**, capture stations require an '**activation key**' to be plugged into one of the **USB** ports.

1) Make backup copies of any alarm/video files that you wish to keep (under *d*:\DSR-video).

2) Ensure the existing NetVision software is shut down, and then remove it (Control Panel ⇨ "Add/Remove Programs").

3) Insert the Netvision™ CD and wait briefly for the installation program to start. (If it doesn't start automatically, eject and reinsert the CD.)

4) Follow any prompts that appear. Tip: Say Yes if asked to delete existing alarm/video files.

5) Select the type of software to install:
4-Camera NetVision Server: Netvision capture station supporting 1 capture-card and 4 cameras;
8-Camera NetVision Server: Netvision capture station supporting 2 capture-cards and 8 cameras;
16-Camera NetVision Server: Netvision capture station supporting 4 capture-cards and 16 cameras.
Remote Station: The full-featured multi-camera remote viewer.
Intelligent Remote Module: A small, single camera viewer.

6) Follow any additional prompts that appear. Tip: Say Yes if asked to restart the PC.

7) When finished, put the CD in a safe place.

Related Topics:
19.1 Capture Station PC Reference
21 Network and Connectivity Issues

21 Network and Connectivity Issues

21.1 General Network Requirements

A standard 10/100 Base T network supporting the TCP/IP protocol can be used. (Our testing was done over a Microsoft network.) Dial-up networking and internet connections are also supported.

These items must be set up by the network administrator:

- Applicable PCs must have access to (and be identified on) the network. This includes assigning a PC name and workgroup;
- Applicable persons must have been set up to log onto the Windows network;
- For logging directly onto a workstation running Windows (2000/XP), persons must have permissions to access any required folders and programs on the PC.

21.2 IP Addressing on the Network

The capture station must be assigned a 'static' IP address on the network. This is done by a network support/admin. person.

With the "Alarm Alert" feature, the remote station must also have a fixed/static IP address.

Note: For cameras and recorded videos to be available, the capture station must be running and logged onto the Network, and the NetVision software must be running (NetVision login optional).

Tip: You can test a network connection by 'pinging' the capture station from the remote station. (To determine the IP address when 'at' the capture station: [Start], Run, `"ipconfig"`.) Then, (DOS/Command prompt), **"Ping"** *CaptureStationIP (xxx.xxx.xxx.xxx)* and watch for "Reply", as opposed to "Timed Out".

Proxy Server: If your network includes a proxy server, you may need to 'tell' windows not to go through the proxy server to access the capture station IP address (i.e., at each remote station on the network). Details: [Start] ⇨Settings ⇨**Control Panel** ⇨Internet Options ⇨Connections⬜

⇨[LAN Settings] ⇨[Advanced]. Then, enter the IP address(es) in the area under "Do not use Proxy Server...". **Tips:** You can use an asterisk (*) as a wild-card. For multiple entries, separate with a semicolon (;). e.g., 555.444.333.* ; 999.888.777.6

21.3 Network Services

These services must also be present (check with your network administrator):

- TCP/IP;
- Client for Microsoft Networks;
- File and Printer Sharing.

21.4 Network Ports

The following network 'ports' must be available. Check with your network administrator to ensure these ports are available:

Server / Feature	TCP Port Needed	UDP Port Needed
HTTP server (default is 8080; change to: ⇨)	80	-
Video Server	1999	-
Chat Server	5001	-
Audio Server	5002	-
Alarm Alert Caller	9002	-
DSR_Relay Server	10327	-
DSR Remote Playback Server	10328	-
SearchEngine Server (Playback +ATM Option)	10330	-
Motion Search Server (for playback)	10400	-
PTZ Server	16781	-
Optional Items		
--ATM Interface: (Event Server)	10329	-
--Site Watch	5763	Permit All
--Windows XP "Remote Desktop" Feature	3389	-

Tip: For "IP Protocols", select "Permit All". Note: To provide better security for the NetVision capture station, the factory defaults include TCP/IP filtering = enabled, and only the non-optional ports indicated above are

allowed (you can add more ports if needed). NetVision should also work fine with TCP/IP filtering disabled and all ports permitted, but that could leave the system vulnerable for hacker attacks and thus reduce overall security.

21.5   To Connect via the Internet

For internet connectivity, the capture station and remote stations must have access to the internet (use the CD and/or instructions supplied by the internet service provider).

> **Note:** For cameras and recorded videos to be available, the capture station and NetVision software must be running, and the capture station must have **permanent** access to the internet (always on-line).
>
> **TechTip:** Due to the amount of data contained in video images, a high-speed (non-dial-up) connection is best.

As well, the capture station must have a fixed IP address, and this value must be known by remote operators.

> **Note:** Due to speed and reliability considerations, dial-up connections are generally not recommended. Use a faster connection if you have a choice.

21.6   Remote User Permissions

To allow remote users to access the various services of the capture station, remote user permissions must be set up at the capture station.
Related Topics: 11.2 Remote Users and Permissions (includes PTZ priority +HTTP Server Port)

21.7   For Remote Viewing, Recording, Playback, and/or Audio Monitoring

To allow a remote station to view cameras and/or monitor audio:

- The capture station must be available to the remote station via IP across a network, **or**;

- The capture station must have permanent access to the internet, and the remote station must have permanent or dial-up access to the internet, **or**;

- Dial-up networking must be set up so the remote station can connect with the capture station. (Details to follow/below.)

> Dial-up: Due to speed and reliability considerations, dial-up connections are generally not recommended. Use a faster connection if you have a choice.

Related Topics:

16.9 Remote Audio Monitoring;
8.1 Viewing Cameras from a Remote Station;
9 Recording Camera-Views

21.8   For Alarm Alerts

To have the capture station send live alarm notifications to a specific remote station:

- The remote PC must be available to the capture station via IP across a network, **or**;

- Both PCs must have permanent access to the internet, **or**;

- Dial-up networking must be set up so the capture station can connect with the remote station. (Details to follow/below.)

Related Topics:
15.1 Enable/Disable Alarm Alerts or E-Mail

21.9   For E-Mail Alerts

To have e-mail recipients notified when a motion-triggered recording occurs (e-mail alerts), a non-Web-based e-mail service must be available to the capture station. As well, the e-mail recipients should have some type of instant notification enabled.

> Tip: You will need to know your "outgoing e-mail (SMTP) server" name. To obtain this info. (and/or to set up your e-mail service), contact your network administrator, or your e-mail service provider. Note: Web-page based e-mail services are NOT supported at the capture station.

Related Topics:
15.1 Enable/Disable Alarm Alerts or E-Mail

21.10 Windows Dial-Up Networking Connection (i.e., **not** via the Internet)

Note: Dial-up networking is a feature of the Microsoft Windows operating system, NOT the Netvision software. For more information, refer to your Windows on-line help, or contact your network administrator.

Modem Installation:

- A modem must be installed and set up under MS Windows on the capture station PC and the remote station(s);

For remote camera viewing and video playback (Through a dial-up Networking Connection):

- An incoming dial-up networking connection must be set up at the capture station to allow remote connections from specific network users (this is typically done at the factory);

- An outgoing Dial Up networking connection must be set up at the remote station for connecting to the capture station (details to follow / below).

For Sending Alarm Alerts to a Remote PC (Through a dial-up Networking Connection):

- An outgoing dial-up networking connection must be set up at the capture station for connecting to the remote station;

- An incoming Dial Up networking connection must be set up at the remote station to allow connections initiated from the capture station.

Windows XP Reference: Outgoing Dial-Up Networking Connection at a Remote Station (e.g., for remote playback)

[Start] ⇨Control Panel ⇨Network Connections ⇨Connect to network at my workplace ⇨[Next] ⇨Dial-up connections ⇨[Next] ⇨Enter a suitable name (e.g., "Netvision) ⇨Enter the Phone number ⇨[Next] ⇨"Anyone's use" ⇨[Next] ⇨"Add a shortcut to this connection to my desktop" ⇨[Finish].

Windows 2000 Reference: Outgoing Dial-Up Networking Connection at a Remote Station (e.g., for remote playback)

1) Right-click **My Network Places** on the Windows desktop, and select **Properties** from the pop-up menu.

2) In the next screen, double click **Make New Connection**.

3) If asked to identify your location (city, area code, etc.), respond appropriately, and click **[OK]**.

4) Click **[Next]** to start the process. Then, select **Dial Up to Private Network**, and click **[Next]** again.

5) Respond appropriately to the remaining screens, clicking [OK], [Next], and/or [Finish] as necessary.

Windows 2000 Reference: Setting up an Incoming Dial-Up Networking Connection (if needed)

Note: To allow remote playback for a capture station, this is typically done at the factory.

1) Right-click **My Network Places** on the Windows desktop, and select **Properties** from the pop-up menu.

2) In the next screen, double click **Make New Connection**.

3) If asked to identify your location (city, area code, etc.), respond appropriately, and click **[OK]**.

4) Click **[Next]** to start the process. Then, select **Accept Incoming Connections**, and click **[Next]** again.

5) Select a modem to use for the connection, and click **[Next]**.

6) Select **Do Not Allow Virtual Private Connections**, and click **[Next]**.

7) Select the user(s) you wish to allow to connect from remote stations, and click **[Next]**.

8) Select **Internet Protocol (TCP/IP)**, and then click **[Properties]**.

9) Select **Allow Callers to Access My Local Area Network**. Select **Specify TCP/IP Addresses**, and type in a small range of IP addresses to be associated with the remote stations (e.g., 192.168.50.**1** to 192.168.50.**3**). Click **[Next]** as needed.

Tip: Obtain suitable IP addresses from your network administrator if required. **Note:** Allowing the calling computer to specify its own IP address is NOT recommended. If you do wish to use this approach, ensure TCP/IP is configured appropriately on the remote PCs.

10) Type in a name for the connection (such as "Incoming Dial In Connection"), and click **[Finish]**. (You will see your new connection in the list.)

Reference Topics

22 Using the Small Remote Module

22.1 About the Remote Module

The remote module software allows viewing one camera at a time, and provides access to playback, chat, PTZ, and housekeeping functions.

22.2 Starting the Remote Module

Tip: Check the Windows task bar to see if the remote module software is already running.

From the Windows **Start** menu, select **Programs, NetVision**, and **Remote Module**.

Tip: With the remote module, you are not prompted to log in until you try to connect to a capture station to use a feature that is set to check remote usernames and passwords.
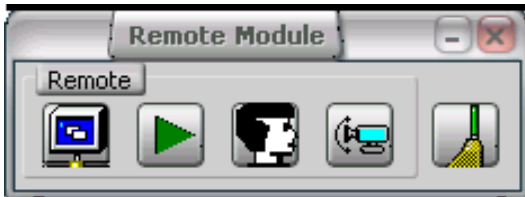
22.3 Using the Remote Module

To access a feature, select an item from the remote station toolbar (details below). If prompted to log in, enter a username and password (that are registered at the specific capture station.)

[Browse]: This allows browsing for a capture station on your network.
(This is available only if you and the capture station are on the same network.)
(Enter your **network** login name and password if prompted for this.)

When you end a session, you may be asked "**Do You want to Clean up All Passwords?**":

- **[Yes]:** If the capture station is set for remote password protection, you'll have to enter your remote user-name and password the next time you log in.
- **[NO]:** The capture station will remember the last password you entered.

22.4 Overview of Features
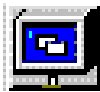
OnLine View: Allows viewing or recording one camera at a time. (This can also be opened from the **alarm alert** feature.)

Server: This allows selecting a capture station. Enter the capture station IP address (network PC name may also work).

Camera: After connecting, select a desired camera here.

Record: This allows starting and stopping a recording for the displayed camera-image.

Resolution: Allows changing the size/quality of a camera-image. A suitable value is normally selected automatically.

Compression: Provides selections that may improve performance for a slower connection (i.e., dial-up).

- Keyframe every xx seconds: This is how often a complete frame is sent compared to only changes from the previous frame. Lower values provide better image quality and require more bandwidth.

- Codec: This determines the compression and file-type for recordings made using this module: • **Mpeg4:** Produces MPEG video recordings (smaller file size, lower quality); • **Indeo5:** Produces AVI video recordings (better quality, larger file size); • **Jpeg:** Frame by frame compression (Mjpeg); • **DivX 3.11:** Produces smaller, high quality AVI recordings.

Note: Mpeg4 and Indeo5 are supported directly. For other file types, the applicable CODEC must have been installed separately.

Related Topics: 8.1 Viewing Cameras from a Remote Station
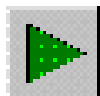
Play Back: Opens the video playback utility.
Related Topics: 7 Playing or Downloading Video Recordings

Alarm Alert: This starts the "Alarm Alert Receiver", allowing a designated remote PC to monitor alarm-alert notifications from various capture station(s).
Related Topics: 6.2 Responding to Alarm Alerts (Remote Station)

Pan Tilt Zoom: Allows 'aiming' and 'zooming' a PTZ camera.

Tip: Select **On-Line View** (✓), so you can see the camera-image.

If you are Unable to Connect: This may mean that the capture station is offline, or that someone with higher PTZ priority is presently controlling the camera. (The capture station may also not have a PTZ camera set up.)

Related Topics: 8.3 Changing a Camera's View (Pan/Tilt/Zoom)
(**Note:** Uses the same control/method as described for **capture** stations.)

Housekeeping: Opens the housekeeping utility allowing you to manage recorded video files.
Related Topics: 10.2 Managing Recorded Video Files (Housekeeping)

23   Remote Configuration

NetVision's remote configuration feature allows authorized remote users, to perform many configuration tasks on a capture station using only their web-browser software (must have access to the internet or to the capture station through a network--via IP).

To access this feature from any PC with access to the internet, open your web-browser, and then use (only) the IP address of the capture station in place of a web site address. When the login screen appears, enter a remote username and password that is registered at the specific capture station (with access to this feature).

Related Topics: 11.2 Remote Users and Permissions (includes PTZ priority +HTTP Server Port)

23.1   Available Selections

Tip: When finished selecting items on a page, click **[Submit]** to have the changes take effect.

Motion Detection

- Allows setting up video motion-detection for each camera associated with the specific capture station.

  Related Topics: Setting Up Video Motion-Detection

Utility

The items below pertain to selections available through the **[Utility]** button on the capture station desktop.

Camera

- **Camera Setting:** Allows enabling camera numbers that are being used (de-select all that are not in-use);

  Related Topics: 16.1 Set up Cameras and Titles

Recorder Setting

- **Frame Rate:** Allows setting the frame rate for various types of recordings (up to 30 frames/second);

Related Topics: 17.4 Frame Rate for Recording

- **Alarm:** Allows setting up external inputs (sensors) that can trigger recordings, plus setting up the pre-alarm recording feature;

  Related Topics:
  18.3 External Sensors and Recording Duration;
  18.4 Setting up Pre-Alarm Recording

- **Recording Planner:** Allows setting up the times for scheduled recording and/or scheduled motion-triggered recordings.

Related Topics: 18.2 Schedules for Recording and/or Motion Detection

Note: This allows working with one camera at a time (select the camera first). To set a block of time for a scheduled recording, click the starting time and then the end-time within the **green** bar. For scheduled motion detection times, use the **red** bar (Default: All Days/times). For schedules to take effect on different day(s), click **[Save As...]** and select the weekday or specific date (click the [▼] to access a pop-up calendar).

Option

- **Sequence Setting:** Allows setting the cameras to appear in sequential viewing;

  Related Topics:
  16.2 Cameras to Appear in Sequential Viewing

- **Recording:** Allows setting the resolution for recording, plus the recording mode;

  Related Topics:
  17.3 Resolution and Recording Mode

- **Operation Setting:** Allows setting various start-up/logoff operating parameters;

  Related Topics: 14.2 Startup / Logoff Options

- **Password:** Allows changing the capture station passwords (i.e., for the "Super" and "Operator" login);

  Related Topics:
  11.1 Capture Station Users and Passwords

- **Audio Setting:** Allows enabling audio support for one camera (pertains to a microphone plugged into the appropriate jack on the rear of the capture station).

  Related Topics: 16.7 Enable Audio for One Camera

24 The WatchDog Feature

24.1 Introduction

The Watchdog feature helps protect against the NetVision software 'hanging', or becoming unresponsive while unattended. If a problem is detected, the capture station PC will be restarted.

With the **hardware** watchdog option, the capture station will be restarted in the event of MS Windows 'hanging' or 'crashing' as well.

24.2 Using the Watchdog Feature

If an error is detected, a small screen will appear approximately 11 seconds before the capture station is restarted. This screen allows you to shut off the watchdog, or set it to wait one more timer cycle (60-250 seconds).

You can also temporarily shut the watchdog feature off at any time: Right-click the "watchdog" icon near the right-hand end of the Windows task-bar, and select **Exit** from the pop-up menu.

Note: To re-enable the Watchdog feature (after shutting it off), shut down and restart the NetVision software.

24.3 Setting up the Watchdog Feature

24.3.1 PC BIOS Setup for Auto-Startup

Note: This is typically pre-set at the factory.

Power ▢ ⇨ **Power up Control** (and press Enter)

⇨ AC PWR Loss Restart: **Enabled**

24.3.2 Windows Settings

Note: This is typically pre-set at the factory.

- User name and password not required (auto-login);
- NetVision shortcut placed in Windows "Startup" folder.

24.3.3 NetVision Startup Options

Note: This is typically pre-set at the factory.

In **[Utility]** ⇨ **[Option Setting]** ⇨ **Operation Setting**:

- On Next Startup:
  + Status Restore (✓)
  + Auto-Login (✓)

24.3.4 Watchdog Configuration

Tips: If you cannot access the Windows task bar, press **Ctrl-Esc** (or your 'Windows' key). To view the names for items on the task bar, click a blank area on the bar, and then 'hover' your mouse pointer over each item.

Logon as a "Supervisor" when prompted. Then, double-click **Optional Features Setup** in the list. When the screen appears, select **Watchdog** ☐, and then make your desired selection(s).
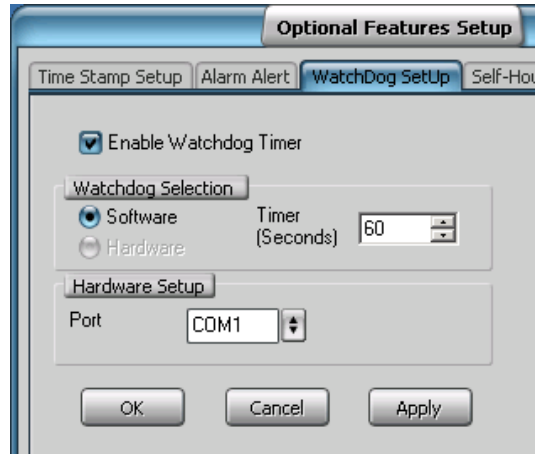
Enable Watchdog: Select this if you will be using the watchdog feature.

Watchdog Selection:

- Software: Select this if you are NOT using the hardware watchdog option.

- Hardware: Select this if you are using the hardware watchdog option.

- Timer: This sets how long the watchdog feature will wait to let the system correct itself before restarting the capture station (60-250 seconds).

Hardware Setup:

- Port: If you are using the hardware watchdog option, select the serial port (COMx) being used for the connection.

When finished, click **[OK]**, and then click **[X]** to close the list (upper-right corner).

Attention: To recognize any DSR Configuration changes made while the capture station software is running, you may need to restart the software.

24.4 Hardware Watchdog Option

Status LEDs

Acknowledge Button

To capture station COM port

Use a 2x5 header with 10 conductor flat cable

Pin 1: Align the red wire with the small triangle.

Wiring (DB9): Pin 1 to pin 1; 2 to 2, etc.

Signalling Outputs

Trouble LED
Standby LED
Comm Error
Normal LED
Acknowledge

To PC Reset

DC In (5V max) e.g., from PC
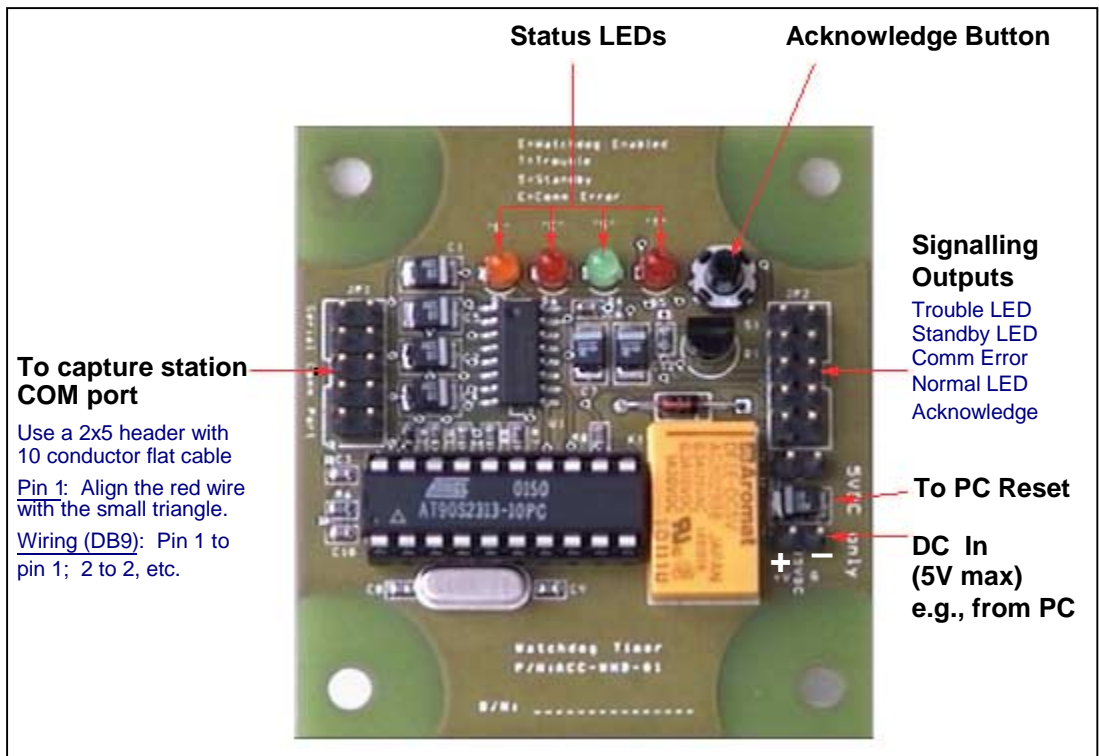
24.4.1   Status LEDs

E: Normal/Working (Orange);
C: Communications error (Red);
S: Standby (Green);
T: Trouble (Red).

E	C	S	T	Description
–	–	On	–	The PC is running but the NetVision software has not been started.
On	–	–	–	Normal operation. All systems ok.
–	Flash-ing	–	–	The Watchdog has detected an error (reset will occur when programmed wait cycle expires (60-250 seconds).
On	–	–	On	The Watchdog detected an error and has restarted the machine. To reset the trouble LED, press the **acknowledge** button.
–	On	–	–	A communication error has occurred. Reinstall the NetVision software. If the indication persists, replace the watchdog board.
–	–	–	–	The watchdog board is not powered.

25   Hardware Reference

25.1   Capture Board Reference

Each video capture board provides a connection for 1-4 cameras. Each capture station can have up to 4 capture boards for a total of 16 cameras.

> **Attention:**   Always remove power before attempting to install or remove a capture board! As well, electronic components are sensitive to static electricity. Use proper handling methods.

Capture board numbering: This depends on the main board (motherboard) provided with your capture station:

NetVision Model ⇩	Capture Board Numbers			
4 cards, 16 cameras	1	2	3	4
2 cards, 8 cameras	1	2	–	–

(When viewed from the rear; left to right.)

Each capture board includes an on-board **security key** which is required by the NetVision capture station software.

> Software Restricted Mode Error Message: If you see an error message during start up that pertains to "security key not found" and/or "Restricted Mode" this may mean:
>
> + You reinstalled capture station software that supports more capture boards than you have installed, **or**;
>
> + You are trying to use an incorrect type/version of capture board;
>
> For more information, contact your authorized support representative.

Related Topics:
25.2 Camera and PTZ Reference

25.2   Camera and PTZ Reference

25.2.1   <u>Cameras Supported (including PTZ models)</u>

Most common NTSC and Pal cameras are supported, including a good selection of PTZ models. For details on supported PTZ models, refer to the PTZ model reference (to follow/below).

> **TechTips:** Beginning with V2.2, eight different PTZ protocols are supported through COM ports 1 - 8 (different protocol for each port). For more than one PTZ camera, the cameras must be (**one of**): • Different types (protocol), and connected through a different port (with RS232 – RS422/485 converter as needed); • Connected in parallel (individual control can be provided though OSRD / receiver-driver IDs); • Use a supported 'cascade' protocol (such as Canon VC-C4); • Connected through a switcher.
>
> **Cameras Identified through a Hardware ID:** Be sure to jot down the OSRD / receiver-driver ID for each camera, as this will be needed when you enable and set up the PTZ feature. <u>Related Topics</u>: 16.3 Pan/Tilt/Zoom Activation and Set Up
>
> **Tip:** Many non-PTZ cameras can be zoomed in and out manually during installation (using buttons on the camera body).

25.2.2   <u>Camera Installation Issues</u>

Ensure cameras are properly installed in a location that will provide the desired view with good image quality / subject size.

> **Zoom:** Cameras typically provide an optical and digital zoom feature that can be set during installation (buttons on the camera). Pan/tilt/zoom cameras can be controlled through the software. Extreme zooming is not a replacement for good camera location, since digital zoom provides larger images of poorer quality.
>
> **Tip:** For best performance, ensure all cameras connected through a single capture board are the same brand (different models okay if from the same manufacturer). Similarly, each capture board should ideally be connected to cameras with similar

21-0400 v2.2.2 | Welcome | Common | Admin | Config | Install | **Tech-Ref** | 91

lighting (e.g., connect indoor and outdoor cameras through separate capture boards).

If these criteria cannot be met, and you are having problems in some views:
Related Topics: 17.1 Video Setup (in DSR Configuration); **16.1.2** [Video Control]

Frame Rate: For maximum frame rate (full motion), only one camera from each capture board can be displayed at a time. As such, try to connect cameras of higher interest (and/or higher security) through **different** capture boards.

25.2.3 Camera Numbering and Display Grouping

In general, camera numbers are associated with a specific capture board and screen area. In view-modes that do not show all cameras at once, cameras to be viewed at the same time must be connected for association with **different** screen areas.

Screen Area ⇨	Camera #s by Screen Area			
	1	**2**	**3**	**4**
NetVision Model ⇩	Legend: board# **":"** Camera#s.			
4 cards, 16 cameras	1: 1-4	2: 5-8	3: 9-12	4: 13-16
2 cards, 8 cameras	1: 1-2	1: 3-4	2: 5-6	2: 7-8
1 card, 4 cameras	1: 1	1: 2	1: 3	1: 4

Camera **1-4**	Camera **5-8**

Tip: When showing only 4 cameras, the 8-camera desktop allows toggling between odd and even cameras.

Camera **9-12**	Camera **13-16**

	Camera #s by Capture Board			
Capture Board	**1**	**2**	**3**	**4**
Camera Numbers	1-4	5-8	9-12	13-16

Related Topics:
25.1 Capture Board Reference (including numbering)

25.2.4 PTZ Model Reference

Note: Manufacturers may change their protocol without notice.

AD_DeltaDome_II_422
- RS422 Communication Protocol
- RS232 to RS422 (4800,8,N,1)

CANON_VC-C4
- VC-C4 communication camera
- RS232C (9600, 8, N, 1 or 2)

Note: Individual control for cascaded cameras is supported for this model (selecting "Camera 0" in the PTZ control will affect all cameras in the 'cascade').

Elmo_PTC_200
- (9600, 8, N, 1)

KALATEL_KTD312
- KTD-312 computer interface ASCII Protocol
- RS-232 to RS232 (2400 or 9600,8,N,1)
- Cyberdome (4800, 8, N, 1)

MV910B_COM2
- RS-232 to RS-422 (9600, 8, N, 1)

PANASONIC_WVCS850 (Conventional)
- Panasonic Conventional protocol,
- compatible with CS600, CS650
- (9600, 8, N, 1)

PANASONIC_WVCS850 (New)
- Panasonic new protocol,
- (9600, 8, N, 1)

PELCO_ASCII
- Pelco ASCII Protocol (Revision G) PELCO CM6700
- Switcher for Coaxitron PTZ control
- RS-232 to RS-232 (9600,8,O,1)

PELCO_D_Version
- Pelco "D" Protocol PELCO SPECTRA Dome
- PELCO DD5A series Dome
- RS-232 to RS-422/485 (2400,8,N,1)

PELCO_P_Version
- Pelco "P" Protocol PELCO SPECTRA Dome,
- PELCO DD5A series Dome
- RS-232 to RS-422/485 (4800,8,N,1)

PHILIPS_AUTODOME
- PHILIPS (BURLE) Auto Dome LTC0809 Series
- RS-232 to RS-422/485

PIH_7000
- Standard RS-485 Interface
- (9600,8,N,1)

PIH_717
- Standard RS-485 Interface
- (9600,8,N,1)

SAMSUNG_SCC_641
- (9600, 8, N, 1)

UEL_MV912RS
- UEL OSRD model of MV912RS
- RS-232 to RS-422/485

UEL_MV961A
- UEL OSRD model of MV961A, MV561
- PHILIPS (BURLE) On-Site Receiver/Driver, LTC8561
- Series : LTC8564/20, LTC8566 Series
- RS-232 to Biphase
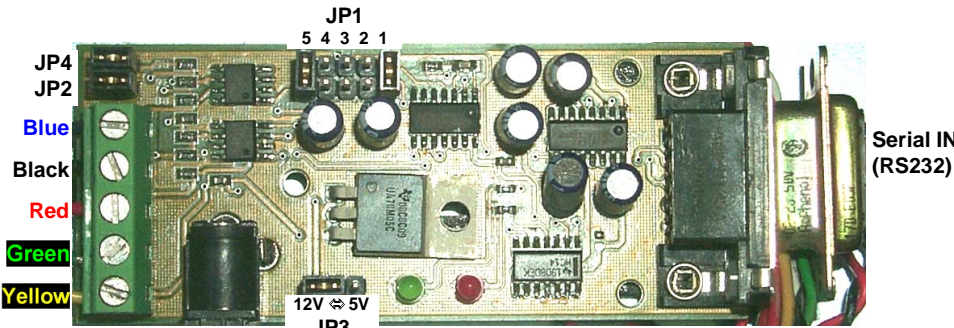
VICON_SURVEYOR99
- RS422 Receiver Communications Protocol
- V5UWM , VICON Surveyor99 Series Camera Dome
- RS232 to RS-422 (600 or 4800,8,N,1)

25.2.5   PTZ Wiring Detail

Typical PTZ Wiring--RS485/RS422 Connection
('Full duplex', although NetVision only 'transmits'.)

* Shielded cable is preferred--especially for longer distances, and/or electrically 'noisy' environments. Ground the shield at one location **only** (e.g., capture station cabinet/screw), and connect the segment shields together at each junction.

RS422/485 Converter

DB9 'Pigtail' wire colours:
(top-left DB9)

(**24 AWG** , **twisted pair**) * Max. 1200m / 4000ft.

Tx (A+)
Tx (B -)   Yellow / Green

Rx (A+)   Red
Rx (B-)   Black   } Not Used
             Blue

Comm Port (RS232)

Personal Computer

TxA   TxB   RxA   RxB
(+)   (-)   (+)   (-)
First

TxA   TxB   RxA   RxB
(+)   (-)   (+)   (-)
Second

TxA   TxB   RxA   RxB
(+)   (-)   (+)   (-)
Last

Note: For some cameras (i.e., Samsung) you may need to reverse the polarity for proper communications (cross A/B at one end).

PTZ Camera   PTZ Camera   PTZ Camera

Note: Where true **half-duplex** ' communication is needed (less common), connect to "Tx" on the cameras instead (and set the converter's jumpers for 'half-duplex').

25.2.6 <u>RS232 – RS422/485 Converter Detail</u>

JP1 Reference	5	4	3	2	1
Typical (default)	✔	-	-	-	✔
Half Duplex (Tx/Rx on same line)	✓	-	✓	-	✓
Half Duplex w/RTS Control	-	✓	✓	-	-

Other Jumpers	
JP2	✔ (always)
JP4	✔ (always)
JP3	per PTZ voltage (see diagram)

25.3   Input / Output Wiring

25.3.1 <u>External Alarm Input</u>

Each camera can have an external sensor associated with it (dry contact). If enabled, the camera-view will be recorded whenever the sensor is tripped. This can be instead of, or in addition to video motion sensing.

The sensors can be either normally open, or normally closed (as long as you 'tell' the capture station software which type of sensor you are using). This is done under:
[Utility] ⇨Recorder Setting ⇨Alarm ☐.

Related Topics:
18.3 External Sensors and Recording Duration

Three outputs are also included to provide signalling functions. One output fires when any external sensor is tripped, a second one triggers when motion is detected in any camera-view, and the third output is activated when either of these conditions occurs.

The inputs and outputs are connected through one or two DB connectors on the back of the capture station.

**External view of connectors
(NetVision 16 Camera Version)**
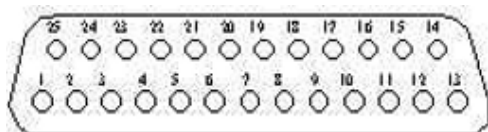
Alarm Connector #1 (25-pin)	
Pin No.	Designations
1	Sensor for camera 1
2	Sensor for camera 2
3	Sensor for camera 3
4	Sensor for camera 4
5	Sensor for camera 5
6	Sensor for camera 6
7	Sensor for camera 7
8	Sensor for camera 8
9	Sensor for camera 9
10	Sensor for camera 10
11	Sensor for camera 11
12	Sensor for camera 12
13	Not used
14	Sensor Gnd
15	Sensor Gnd
16	Sensor Gnd
17	Sensor Gnd
18	Sensor Gnd
19	Sensor Gnd
20	Sensor Gnd
21	Sensor Gnd
22	Sensor Gnd
23	Sensor Gnd
24	Sensor Gnd
25	Sensor Gnd
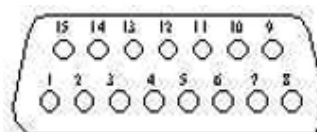
Alarm Connector #2 (15-pin)	
Pin No.	Designations
1	Sensor for camera 13
2	Sensor for camera 14
3	Sensor for camera 15
4	Sensor for camera 16
5	Alarm output 1
6	Alarm output 2
7	Alarm output 3
8	Not used
9	Sensor Gnd
10	Sensor Gnd
11	Sensor Gnd
12	Sensor Gnd
13	Output COM
14	Output COM
15	Output COM

Output Specifications:

- Open collector output
- High impedance at normal
- Sink current at alarm

Input and Output Wiring Using the Adapter Harness (NetVision 16 Camera version)

Colour Abbreviations:

R-Red	G-Green	Wh-White
Bl-Blue	Bk-Black	Or-Orange

Sensors for Cameras 1-12 (From the DB-25 Connector)			
Pin 1-Alarm	#1 input: Bk	Pin 14-Alarm	#1 ground: Wh/G
Pin 2-Alarm	#2 input: Wh	Pin 15-Alarm	#2 ground: Wh/Bl
Pin 3-Alarm	#3 input: R	Pin 16-Alarm	#3 ground: R/Bk
Pin 4-Alarm	#4 input: G	Pin 17-Alarm	#4 ground: R/Wh
Pin 5-Alarm	#5 input: Or	Pin 18-Alarm	#5 ground: R/Or
Pin 6-Alarm	#6 input: Bl	Pin 19-Alarm	#6 ground: R/Bl
Pin 7-Alarm	#7 input: Bk/Wh	Pin 20-Alarm	#7 ground: G/R
Pin 8-Alarm	#8 input: Bk/R	Pin 21-Alarm	#8 ground: G/Or
Pin 9-Alarm	#9 input: Bk/G	Pin 22-Alarm	#9 ground: Wh/R/Bk
Pin 10-Alarm	#10 input: Bk/Or	Pin 23-Alarm	#10 ground: R/Bk/Wh
Pin 11-Alarm	#11 input: Bk/Bl	Pin 24-Alarm	#11 ground: Bk/Wh/R
Pin 12-Alarm	#12 input: Wh/Bk	Pin 25-Alarm	#12 ground: Bk/Wh/G
Pin 13-Wh/R	(Not Used)		

Sensors for Cameras 13-16 (From the DB-15 Connector)			
Pin 1-Alarm	#13 input: Bk	Pin 9-Alarm	#13 ground: Bk/G
Pin 2-Alarm	#14 input: Wh	Pin 10-Alarm	#14 ground: Bk/Or
Pin 3-Alarm	#15 input: R	Pin 11-Alarm	#15 ground: Bk/Bl
Pin 4-Alarm	#16 input: G	Pin 12-Alarm	#16 ground: Wh/Bk

Outputs (From the DB-15 Connector)			
Pin 5-Alarm	#1 output: Or	Pin 13-Alarm	#1 Output Com: Wh/R
Pin 6-Alarm	#2 output: Bl	Pin 14-Alarm	#2 Output Com: Wh/G
Pin 7-Alarm	#3 output: Bk/Wh	Pin 15-Alarm	#3 Output Com: Wh/Bl
Pin 8-Bk/R	(Not Used)		

Internal Connections (NetVision--16 Camera):
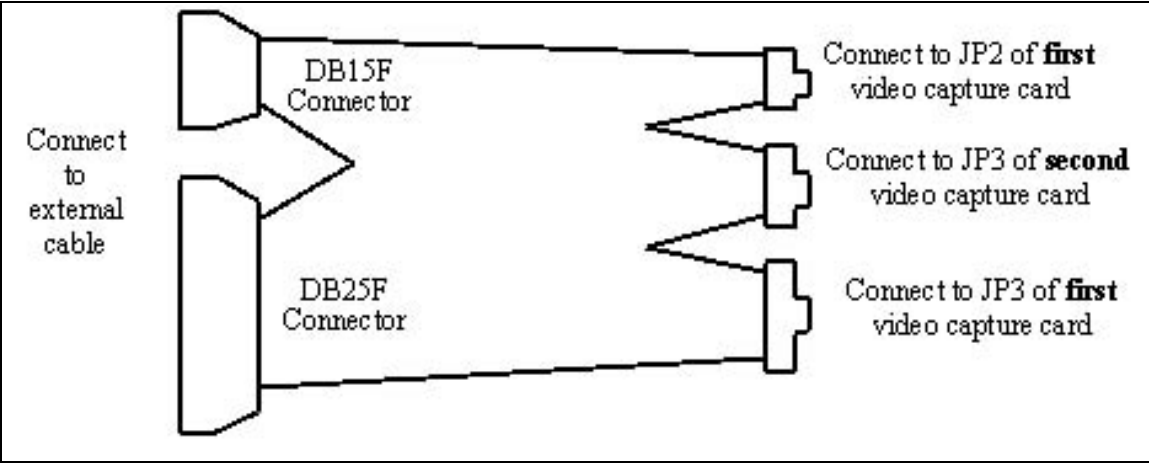
25.3.4 Input and Output Wiring Using the Adapter Harness (NetVision 8 Camera version)

Input and Output Connections (From the DB-25 Connector)			
Pin 1-Alarm input	#1: Bk	Pin 14-Alarm ground	#1: Wh/G
Pin 2-Alarm input	#2: Wh	Pin 15-Alarm ground	#2: Wh/Bl
Pin 3-Alarm input	#3: R	Pin 16-Alarm ground	#3: R/Bk
Pin 4-Alarm input	#4: G	Pin 17-Alarm ground	#4: R/Wh
Pin 5-Alarm input	#5: Or	Pin 18-Alarm ground	#5: R/Or
Pin 6-Alarm input	#6: Bl	Pin 19-Alarm ground	#6: R/Bl
Pin 7-Alarm input	#7: Bk/Wh	Pin 20-Alarm ground	#7: G/R
Pin 8-Alarm input	#8: Bk/R	Pin 21-Alarm ground	#8: G/Or
Pin 9-Alarm output	#1: Bk/G	Pin 22-Output com	#1: Wh/R/Bk
Pin 10-Alarm output	#2: Bk/Or	Pin 23-Output com	#2: R/Bk/Wh
Pin 11-Alarm output	#3: Bk/Bl	Pin 24-Output com	#3: Bk/Wh/R
Pin 12-Wh/Bk	(Not Used)	Pin 25-Bk/Wh/G	(Not Used)
Pin 13-Wh/R	(Not Used)		

Internal Connections (NetVision--8 Camera):
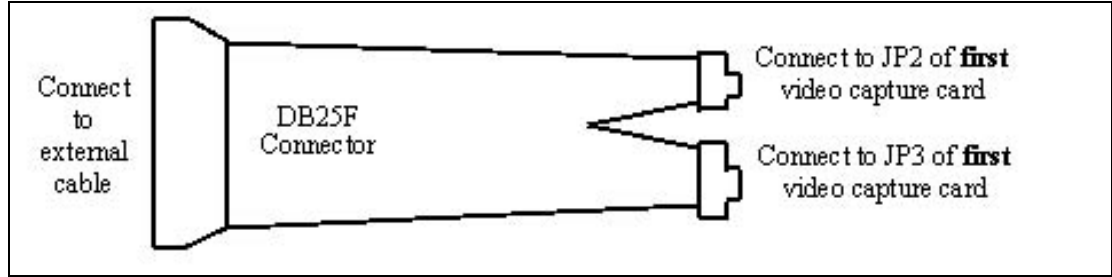
25.3.5 I/O Adapter Harness (NetVision 4 Camera version)

Pin 1-Alarm input	#1: Bk	Pin 9-Alarm ground	#1: Bk/G
Pin 2-Alarm input	#2: Wh	Pin 10-Alarm ground	#2: Bk/Or
Pin 3-Alarm input	#3: R	Pin 11-Alarm ground	#3: Bk/Bl
Pin 4-Alarm input	#4: G	Pin 12-Alarm ground	#4: Wh/Bk
Pin 5-Alarm output	#1: Or	Pin 13-Output com	#1: Wh/R
Pin 6-Alarm output	#2: Bl	Pin 14-Output com	#2: Wh/G
Pin 7-Alarm output	#3: Bk/Wh	Pin 15-Output com	#3: Wh/Bl
Pin 8-Bk/R	(Not Used)		

Internal Connections (NetVision--4 Camera)
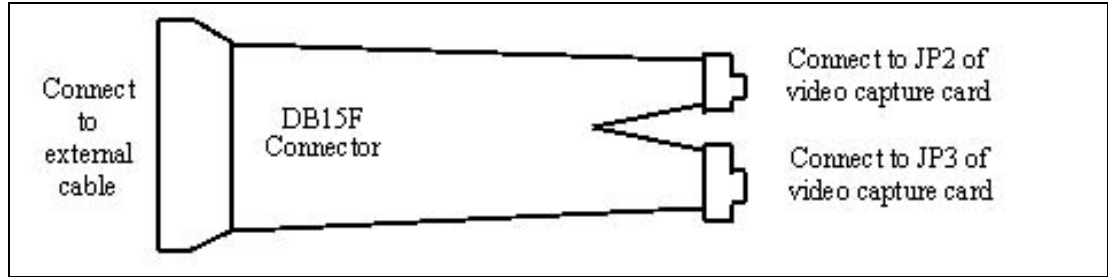
26 Troubleshooting

26.1 Unable to Connect

Check these items:

1) Ensure the capture station is running, and logged onto the network.

2) Ensure you are using the correct IP address.

3) When logging into a remote station, ensure you are entering a user name (and correct password) that have been registered at the capture station.

   Related Topics: 11.2 Remote Users and Permissions (+ HTTP server port)

4) Check with your network administrator to ensure no network considerations have been overlooked.

   Related Topics:
   21 Network and Connectivity Issues

26.2 Camera Display Problems

26.2.1 All Cameras White/Washed Out

If all cameras appear 'washed out' (bright/white image), check to ensure you have disabled all camera numbers that are not connected.

> **Locator:** (Logged in at the capture station as a "Supervisor"),
> Select: **[Utility]**, then **[Camera Setting]**.

26.2.2 Some Cameras Jumpy or Very Bright for Brief Periods

Try to ensure cameras on a specific capture board are the same brand (different models from the same manufacturer are okay).

Similarly, try to ensure cameras on a specific capture board are in similar lighting conditions. For example: Try to keep indoor and outdoor cameras on separate capture boards.

> If this cannot be achieved:
> See: 17.1 Video Setup (in DSR Configuration).

26.3 Video Playback Problems

26.3.1 Black Screen Flickers when You Try to Play a Video Recording

Try deactivating "DirectDraw" for your Windows media player. Sample steps follow (differs by player version):

1) Start up your Windows media player (under: Programs ⇨Accessories ⇨Entertainment);

2) Select these items: **File** ⇨Properties ⇨Advanced ⇨Video Renderer ⇨Properties ⇨DirectDraw.

3) Ensure **NO** DirectDraw options are selected.

> Alternative: Download and install the latest version of Windows media player (e.g., 7.x).

26.4 Testing PTZ Cameras at a Capture Station (PTZ Diagnostic)

If you know the correct PTZ command-format (syntax), you can test PTZ cameras by sending PTZ commands manually.

Right-click the PTZ control form and select **PTZ Diagnostic**. The top of the diagnostic screen shows PTZ commands being sent by the NetVision software.

Then, type your desired command, click **[Send]**, and watch for the camera to respond.

27 Using the ATM Interface Option

27.1 Introducing the ATM Interface Option

An ATM interface option is available that allows:

- Interfacing with automated teller machines (ATMs) on a banking network;

- Recording the scene when each person uses the ATM machine (with or without a short video of just before each person used the machine--i.e., pre-alarm recording);

- Showing the ATM transaction information as a subtitle while each ATM camera is being recorded;

- Tracking activity at an ATM vestibule;

- Playing captured videos associated with each ATM transaction. (Remotely, you can play the recordings, and/or download them to you local hard drive);

- Taking snapshot image(s) from the ATM videos and either saving them as a file, or printing them as a single-page 'report'.

Note: For remote access, the ATM Interface option can be used by remote users with access to the "Playback" server.

27.2 Topics Covered Elsewhere:

- **"ComTools" Software Installation and Set Up**;

- **ATM Interface Option Installation and Set Up:**

These topics are documented separately (provided with the ATM Interface Option)

27.3 Viewing ATM Cameras

ATM cameras are viewed in the same manner as other cameras. For details, refer to the related topics.

Related Topics:
8.1 Viewing Cameras from a Remote Station
8.2 Viewing Cameras at a Capture Station
22 Using the Small Remote Module

27.4 Recording ATM Camera Images

ATM cameras are typically set to record in response to each ATM transaction. This is described in the documentation provided with the ATM option (ATM Interface Option Installation and Set Up).

All other recording methods and scheduling can also be used if desired (i.e., the same as for all other cameras).

Attention: ATM transactions are treated as alarms. As such, alarm monitoring schedules associated with ATM cameras will affect transaction-triggered recordings. Be sure this is what you want before setting up this type of scheduling.

Related Topics:
6.4 Alarm / Recording Status Indications at a capture station (Camera Number Colours)
9 Recording Camera-Views
18 Scheduled and/or Alarm-Triggered Recording

27.5 Playing ATM Video Recordings

27.5.1 <u>Part 1: Introduction and Accessing This Feature</u>

ATM videos can be played back in a similar manner to other recordings, although this can be done only through the ATM event playback screen.

- Select the **Playback** function of your NetVision software:

> Capture Station: **[Playback]** button near the bottom-right;
> Remote Station: Blue triangle near the bottom-left corner;
> Small Remote Module: Green triangle.

- In the playback screen, click **[ATM]** at the bottom, and log in as a remote user when prompted.

  Notes: • If the descriptive 'bubble' is still present above the (other) Search button, you will need to wait until it disappears, or click **[ATM]** again. • The login information entered here will be used only for **remote** ATM playback sessions. • If the **[ATM]** button is not present, this means you do not have the ATM interface option installed.

27.5.2 <u>Part 2: Search for Desired Files</u>

- Click **[Search]** near the bottom-right of the ATM / Event playback screen.

- Enter your search criteria, and click **[Search Now]**. The recordings will appear in a list at the bottom.

  Tip: To quickly find your desired video, it is best to limit the search to a small block of time and/or a small range of transaction numbers.

Local, **Remote**, and **[Clear History]:** This allows selecting the PC/location of the ATM video files. For files on your present PC, click "**Local**", and then select the PC name in the

list. For a remote capture station, click "**Remote**", and enter (or select) the IP address of the specific PC (xxx.xxx.xxx.xxx). To clear the "Remote" selections list, click **[Clear History]**.

Date (From and **To):** Set the desired range of dates and/or times for files to be included in the list.

Tip: You can access a pop-up calendar by clicking the button next to the start or end date. To select specific times, select the date first, and then select and enter the hours, minutes, and seconds as desired. **Note:** It will be easier to find your desired video file if you limit the list to a <u>small</u> date/time range.

ATM Machine Number: To limit the list to one ATM machine, select the capture station serial (COM) port associated with your desired ATM machine here.

Transaction Number "From" and **"To":** To limit the list to a specific range of transaction numbers, set the desired lowest and highest values in the range (From = Lowest; To = Highest).

Tip: It will be easier to find your desired video file if you limit the list to a <u>small</u> range of transaction numbers.

[Search Now]: After selecting your desired search criteria, click this button to perform the search.

[Stop Search]: This stops a search that is presently under-way.

27.5.3 Part 3: Select and Play a Video

To play a video, simply locate the desired one in the list, and either double-click the transaction number, or select the transaction number, and click [▶] on the right side of the screen.

If the file-list is larger than one screen, a scroll-bar will appear on the left for your convenience.

If the list contains more than 20 transactions (60 files including pre-alarm recordings), it will be broken up into '**pages**' that can be selected in the navigation field at the bottom-right corner of the list.

Notes: • Scrolling pertains to a single 'page' only.   • The 'Search' screen closes automatically when you start playing a video. • If you wish to close it manually, click the **[X]** in the upper right corner of the 'Search' form.

27.5.4 Part 4: Buttons in the Playback Window

Top-Right Buttons: These allow viewing or printing a 'snapshot' frame from a recorded video (covered in 'Part 6', to follow).

Position '**slider**': This shows your relative position within a video. You can drag the slider to quickly skim through a video.

Buttons Near the Bottom Half of the Slider: These allow replaying or resuming a video, pausing, stopping, and jumping to the next or previous file. These buttons appear yellow when available.

Play: Starts playing your selected video.

Pause: Stops the video playback. (Selecting "Play" will continue from the present position.)

Stop: Stops the video playback. (Selecting "Play" will restart from the beginning.)

Backward: Rewinds the video one frame at a time;

Forward: Advances the video one frame at a time

Previous File: Jumps to the beginning of the previous video file (in the current 'page' of the file list);

Next File: Jumps to the beginning of the next video file (in the present folder/list);

Continuous Playback: The remaining videos (in the current 'page' of the file list) will be played automatically in sequence).

Zoom (50%, 100%, 200%): This allows you to change the size of the video image.

[Search]: Click this to perform a new search. See "Part 2", previous/above.

27.6 Additional Options
(the right-click menu)

Some additional commands can be accessed by right-clicking the transaction number for a file/event:

- **Protect/Unprotect This Tran.:** This allows blocking or allowing transaction files to be deleted by the ATM auto-housekeeping feature. Protected files/transactions are flagged with an asterisk (∗).

  Tip: If you wish to access the auto-housekeeping feature for ATM recordings:
  - Go to the specific capture station;
  - Right-click the Event-Server module on the task bar; • Select **Set Up** from the pop-up menu; • Log in as a "Supervisor"; • Click **[Housekeeping Setup]**.

- **Authenticate:** This checks the file's built-in watermark to ensure the file has not been tampered with.

- **Download:** This copies a remote file onto your PC's hard-drive. Thereafter, the video will be available under "Local" on your PC.

27.7 Viewing and Printing 'Snapshots'

You can take 'snap shots' of desired images from a video file, and print or save them as desired.

First, open/play the desired video, and use the 'position' slider, or the pause and play buttons to locate the desired image. Then, use the buttons next to the top half of the speed slider as desired:

Snapshot Buttons (top-right)

	Camera (snap shot): This toggles between video playback mode and snapshot mode (snapshot buttons appear yellow when available);
	Magnifying glass (zoom): To enlarge (zoom into) a portion of the video frame, click-and-drag a box around the desired area, and then click this button;
	To Zoom Back Out: Click the Zoom button again.
	Printer symbol (Print): This allows printing your snap shot in a single-page 'report'.
	(Click the 'printer' button, and then use the command buttons at the top of the print-preview screen.);
	Diskette symbol (Save): This allows saving your snap shot as a "BMP" file. (Browse for the desired folder, and click **[OK]**.)
	Page symbol (Printer Setup): This allows setting up header, disclaimer, and comment text to appear on printed snapshot 'reports'. Enter your desired text. Click **[Header/Disclaimer]** to access those items. When finished, click **[OK]** to close each screen as needed.

To close the playback windows when finished, click the **[X]** in the top right corner of each playback screen.

Index